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Indiana State Medical Association

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Table of Contents on page iv

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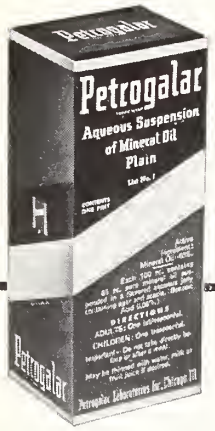

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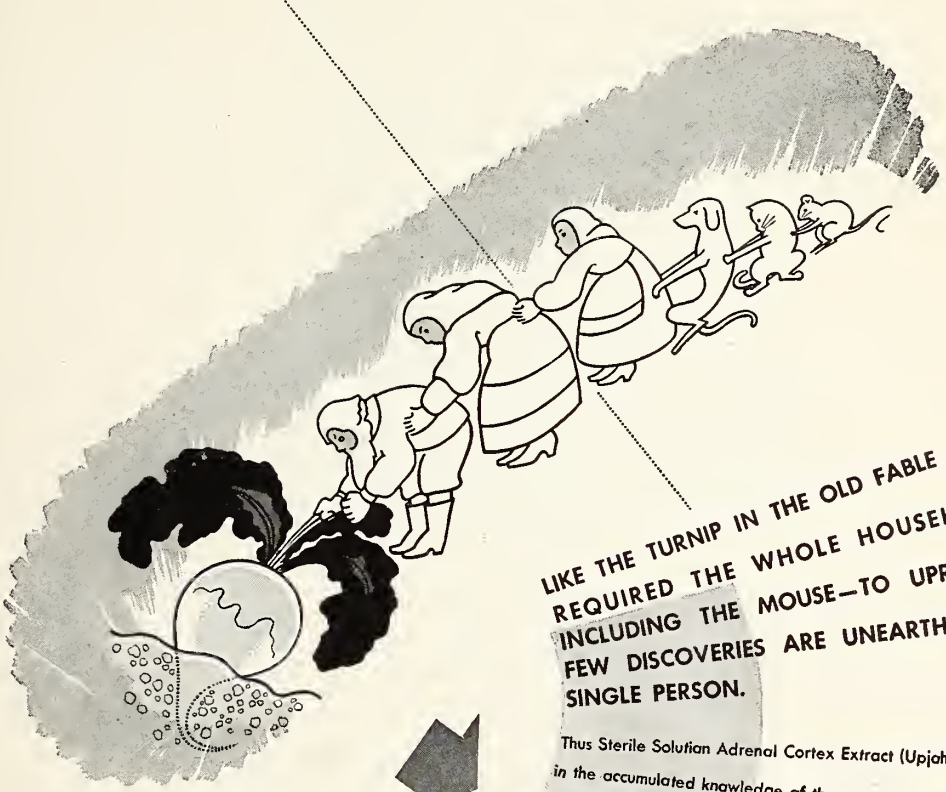

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Contents

ORIGINAL ARTICLES

Skull Fractures and Brain Injuries. Harry E. Mock, M.D., Chicago, Illinois 1
Wartime Industrial Surgery. N. K. Forster, M.D., Hammond 11
Emergency Medical Service of Civilian Defense. William S. Keller, M.D., Cleveland, Ohio 16
Medicine and Pharmacy—Shoulder to Shoulder. Stephen Badanish, Gary 22
The Ocular Manifestations of Multiple Sclerosis. Bernard J. Larkin, M.D., Indianapolis 26

EDITORIALS

A Happy New Year! 30
Doctors Eastman, Mettel, and Cregor 30
The Changing Years 31
The Oberlin Award 31
The Freshman Year in Medicine 32
War Bond Purchases 33
Editorial Notes 33

SPECIAL ARTICLES

President's Page 36
On the Removal of a Dead Body From the Hospital. Albert Stump, Indianapolis 37
Secretaries' Conference 38
Choosing Laboratory Tests. L. G. Montgomery, M.D., Muncie 40
Under the Capitol Dome 43
What Went On During World War I 44

MISCELLANEOUS

Deaths 50
Military News 45
News Notes 47

Societies and Institutions:
- Indiana State Medical Association: Executive Committee 52
- Local Societies—Officers 54
- Local Societies—Meetings xxi
- Woman's Auxiliary xxii

Indiana State Board of Health—Bureau of Communicable Diseases xxxvi

The swaddled infant pictured at right is one of the famous works in terra cotta exquisitely modeled by the fifteenth century Italian sculptor, Andrea della Robbia. In that day infants were bandaged from birth to preserve the symmetry of their bodies, but still the gibbous spine and distorted limbs of severe rickets often made their appearance.

A bambino from the Foundling Hospital, Florence, Italy,—A. della Robbia

Glisson, writing in 1671, described an ingenious use of swaddling bands — "first crossing the Brest and coming under the Armpits, then about the Head and under the Chin and then receiving the hands by two handles, so that it is a pleasure to see the Child hanging pendulous in the Air . . . This kind of Excercise . . . helpeth to restore the crooked Bones. . . ."

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SKULL FRACTURES AND BRAIN INJURIES*

HARRY E. MOCK, M.D.
CHICAGO

Recently *The Journal of The American Medical Association* published a paper on this subject, written by the author and his son, Dr. Harry E. Mock, Jr. This paper contains facts and statistics gathered from the accumulated material of 7,031 consecutive proved or practically-proved skull fracture—brain injury cases. In addition to the 487 cases treated personally or seen in consultation, we have collected 6,544 consecutive skull fracture cases covering the period 1928-1940, from approximately one hundred surgeons and fifty hospitals, representing every section of the country. Again, based upon this material, an article has appeared in *The Surgical Clinics of North America.*[1] Any one interested in following up this subject may read the above articles for the more elaborate statistical tables presented therein.

As a native son, I welcome this opportunity of presenting to the members of the Indiana State Medical Association my views and conclusions on a subject which has been my chief surgical hobby for the last eighteen years. I wish to dedicate this paper to my uncle, the late Dr. F. G. Jackson, who practiced medicine for fifty years in Muncie, Indiana. As a boy of sixteen, I watched him operate a depressed skull fracture in the parlor of a farm home, and since then my interest in skull fractures has never waned.

During fifteen of the twenty years of riding this skull fracture hobby, the author has accumulated records on 495 consecutive proved skull fractures, treated by him personally or seen in consultation. During that same period over 1,500 head injuries without fractures have been treated. His mortality rate for the proved skull fractures is now 16.8 per cent. Diluting his skull fracture series with his serious head injuries without fractures gives a mortality rate of 11 per cent. In reviewing 267 proved skull fractures treated by Schreiber and 266 similar cases treated by Gurdjian, we found a mortality rate of 16.6 per cent and 16.7 per cent, respectively, for their skull fracture cases. Temple Fay, Wright, Munro, the late George Swift and his associate, Dr. Berens, and a few others who have reported on their death rates in skull fractures and truly serious head injuries, show mortality rates varying from 10 to 20 per cent. Few have reported on death rates in proved skull fractures alone, but when they do their mortality rates are from 7 to 12 per cent higher than when they report on a series of head injuries with and without fractures. While the brain injury in a non-skull fracture case may be just as serious as when a skull fracture is present, yet given a large series of cases the mortality rate in proved skull fractures is always higher. In our cases, as well as in all series reported, every death occurring after admission to the hospital was recorded. These several series form the basis of comparison of mortality rates in the two nation-wide surveys of consecutive proved skull fractures, which the author has made since 1929. Proved skull fractures have been used in collecting our statistics, since this pathological entity furnished a common denominator of comparable seriousness. All who listen or read know that, with few exceptions, the injury to the brain and not the fracture is the fundamental aim of treatment.

These two surveys consisted of securing the consecutive hospital records, or the consecutive case records, of proved skull fractures from approximately fifty hospitals and one hundred surgeons, representing all sections of the country. The first survey dealt chiefly with the type of management and the mortality rate. The second survey has been far more complete as regards etiology, location and type of fracture, time of taking x-rays, frequency of observing pulse, respiration, tempera-

* Presented before the General Meeting of the Indiana State Medical Association at French Lick on September 30, 1942.

[1] Mock, Harry E.: The Management of Craniocerebral Trauma and Associated Injuries. *The Surgical Clinics of North America,* (August) 1942.

ture and blood pressure and recording the same, the nature of the disturbed consciousness as well as other symptoms, the focal signs and reflexes, the associated injuries and complicating diseases, and, finally, the type of treatment administered. All of the above data have been taken from the hospital record of each case and recorded on our survey sheet. The combined records of a single hospital formed a unit for comparison with each of the other hospital cases reviewed.

The first survey covered the consecutive proved skull fracture cases treated over a period of three to five years in thirty-one hospitals during the years 1929 to 1935, and netted 3,156 cases. The consecutive series of cases from each of these hospitals showed mortality rates varying from 25 per cent in the best hospitals (from the standpoint of skull fracture management) to 49 per cent in the poorest.

The second nation-wide survey covered the consecutive proved skull fracture cases treated during the five-year period of 1935 to 1940, in nineteen hospitals, and netted a total of 3,106 cases. The mortality rate in the hospitals showing the best management was 17 per cent, and this rose to 42 per cent in the hospital showing the poorest management. The average improvement in death rate from skull fractures throughout the nation, as shown in the second survey, was 7 per cent.

Standards of observation and treatment, as judged by the author's personal experience in approximately 500 cases, were established in order to compare the management and results thereof among the 3,106 collected cases of this second survey. Each individual case record from each hospital was graded according to these standards. The average of the grades for the total series of cases in each hospital unit determined the *management group* to which the hospital belonged. Three management groups were established and were called *Good, Average and Poor Management Groups.*

Chart I, which is taken from the above mentioned paper presented before The American Medical Association this year, shows the seven points upon which each case record was graded; the placing of each hospital into its management group according to the unit grade; and the low and high mortality rates for the hospitals in each group.

In other words, here are nineteen hospitals scattered from New Hampshire to Texas, and from Washington to Florida, representing the small rural hospital, private hospitals in medium sized and large cities, and a few large county hospitals where the number of consecutive skull fracture cases treated in each hospital during this five-year period varied from 20 to 1,500. The mortality rate in the best of these hospitals was 17 per cent, whereas the hospital showing the poorest results had a death rate of 42 per cent. Four hospitals made up the Good Management Group with an average mortality rate of 19 per cent. Five hospitals were represented in the Average Management Group with an average death rate of 25 per cent. Ten hospitals belonged to the Poor Management Group with an average mortality rate of 38 per cent. Remember, that these were consecutive cases—not picked cases—of equal seriousness and treated in the average run of hospitals in the United States. Ask yourself the questions, "Into which hospital would you want your wife or your child taken for treatment if injured while making an auto tour of the country?" "Why does the staff of one hospital save 83 per cent of their skull fracture cases while another hospital receiving approximately the same proportion of linear, combined and basal skull fractures, with approximately the same proportion of associated injuries, saves only 58 per cent of their cases?"

CHART I

GOOD—AVERAGE—POOR MANAGEMENT

GRADED ON FOLLOWING POINTS

Hospitals Grouped According to Management	*Good A to D*	*Average E to I*	*Poor J to S*
Number of Consecutive Skull Fractures	323	2033	750
Mortality Rates	17 to 21%	23 to 29%	30 to 42%
Observation Average Grade	85%	75%	54%
Treatment Average Grade	82%	60%	35%
Shock Rules Observed	85%	70%	45%
Dehydration When used was adequate	90%	70%	38%
Spinal Tap When indicated, done early (first 24 hours)	78%	50%	20%
Spinal Fluid, drainage sufficient (20 to 70 cc.)	80%	45%	18%
Operative Judgment	78%	80%	50%

THE ANSWER

The answer to the last question is graphically shown in Chart II.

After conscientiously analyzing the case records of 67 patients who died, out of 400 patients treated solely or partially by me, I am convinced that at least seven of these patients might have been saved if observed more closely and if better judgment had been used as to when and how to act as regards spinal drainage and operation. Thus, I might have had a mortality rate of 15 per cent instead of 16.8 per cent.

CHART II

WHAT KILLS SKULL FRACTURES?

PATHOLOGICAL—10% to 12% INEVITABLE

1. Cerebral Shock.
2. Massive Brain Lesions.
3. Small Hemorrhages in Vital Centers.
4. Serious Associated Injuries.
5. Complicating Diseases.

MISMANAGEMENT—5% to 50% PREVENTABLE

1. Failure to Treat Shock First.
2. Failure to Observe and "Chart the Course."
3. A "Hit-and-Miss" Type of Dehydration.
4. Overdehydration and Starvation.
5. Too Few or Too Late Spinal Punctures.
6. Too Few, Too Many, and Too Early Operations.
7. Oversedation.

After conscientiously analyzing the 3,106 consecutive, proved skull fracture cases collected, and especially the 750 consecutive cases treated in the Poor Management Group, I am convinced that 50 per cent of the patients dying in the hospitals where the poorest skull fracture management was apparent might have been saved by closer observation of each individual case and by adherence to well-established rules concerning management. All of us in the profession are slowly learning these rules of management and are using them better, as evidenced by the 7 per cent improvement in mortality rates from skull fractures shown by my two nation-wide surveys. The above implied indictment is warranted if it will stimulate more of us to reduce the high mortality rate from brain injuries.

THE REMEDY

The management which will give better results and lower mortality rates in brain injuries is epitomized in Chart III.

CHART III
MANAGEMENT WHICH GIVES IMPROVED RESULTS

1. Treat Cerebral Shock First.
2. Avoid Adding Insult to Injury.
3. Chart Course Hourly—Live with Patient.
4. Blood Transfusion for Persistent Shock or Severe Associated Injuries.
5. Oxygen Early for Persistent Unconsciousness—Cerebral Anoxia—Threatened Respiratory Failure or Associated Chest Injuries.
6. Postural Drainage or Aspiration.
7. Adequate Dehydration—Spinal Drainage—Operation, Each, When and If Indicated by Signs and Symptoms.
8. Avoid Overdehydration—Do Spinal Puncture Early When Indicated — Drain Adequate Amount of Fluid. Early Operation Seldom Indicated.
9. Maintain Nutrition—Feed by Stomach Tube if Necessary.
10. Avoid Oversedation—Seldom if Ever Use Morphine.
11. Consider the Patient—Not the Family or the Surgeon's Convenience.

Cerebral Shock: This is a definite entity and should be differentiated from ordinary shock. Those authors who write that shock is not a common accompaniment of brain injuries are dealing more with head injuries without fractures than with true skull fractures. It behooves us to treat every patient who is unconscious or who has or has had some varying degree of disturbed consciousness as one with *potential cerebral shock* from the time the patient enters the hospital until further close observation demonstrates the danger is past. Nothing is lost by such management and everything may be gained. One of my best residents observed a patient with a head injury and a long scalp wound for one hour. At the end of that time, because the patient showed no signs of shock, he moved him into the dressing room, cleansed the wound and sutured it. Later, the resident explained that as he put in the last suture the patient seemed to go into profound shock and died before he could return him to bed.

Disturbed consciousness, varying from a dazed condition to deep coma, usually accompanies cerebral shock. Due to the nature of the accident or the presence of associated injuries, signs of ordinary shock may be present. Grafted on this are the slowed pulse; slow, shallow respirations; often an erratic systolic with a low diastolic pressure—all indicative of cerebral damage modifying the picture of ordinary shock. In the severest form of cerebral shock the patient may pass from delirium to the deepest coma, with a rapidly increasing pulse rate, rapid respirations of a stertorous or Cheyne-Stokes variety, and a pulse pressure markedly increased due to a rising systolic and a dropping diastolic pressure. A temperature increase to approximately 100° is usually present by the time the patient reaches the hospital. Within the next few hours this temperature may climb to 106°, 108° or more, in which case the patient practically always dies. When severe associated injuries are present, the shock from these, combined with cerebral manifestations, often gives this picture of profound shock.

Sixty-four per cent of 300 of my consecutive skull fracture cases died in the first twenty-four hours. Nine of these deaths occurred from one minute to one hour, and thirteen from one hour to six hours after admission, or a total of 22 of the 32 deaths in the first six hours. Most of these showed extreme *cerebral shock*, while a few had profound shock from associated injuries. Three other cases showed equally profound shock but were saved—one by an operation for a ruptured spleen four hours after admission; the second by a spinal puncture and drainage of a large amount of bloody spinal fluid fifteen minutes after admission, because of three severe generalized convulsions during that period; and the third by a blood transfusion within one hour, followed by early spinal drainage. *Inevitable death* certainly could have been the prognosis in these three cases any time during the first six hours, but a fighting management in spite of impending death saved these cases. The old dogma that "20 per cent of all skull fractures will die in spite of what you do" is a false statement. There are a few cases where death is inevitable, but no man can pick the inevitable deaths 100 per cent. In no other pathological condition is the old saying "As long as there is life there is hope" so true as in brain injuries. Treat cerebral shock first, but observe the patient almost constantly and be ready to act if a death-threatening emergency arises. But remember that in the great majority of cases in cerebral shock, too much action is adding insult to injury—an insult which too often results in death. When the patient survives, this picture of cerebral shock gradually merges into the changing signs and symptoms indicative of the brain pathology present. In many cases it is difficult to say when the shock period has passed, but it should be considered as a potential factor of danger for at least six hours.

No head injury patient who is unconscious or gives a history of unconsciousness should be re-

tained in the emergency room to have his clothes removed or the scalp wound sutured. Such a patient must be moved to bed at once, and heat applied—the clothes cut off later under blankets.

Associated fractures should be splinted and protected but never manipulated and reduced until positive that the insult of such treatment will not complicate the brain injury or cause death.

No head injury patient who is in shock or unconscious or restless or delirious should be x-rayed at once. Because the cerebral shock is often delayed, the x-ray, as well as other insults, should be delayed lest the maneuvers in the x-ray laboratory bring on the shock or other complications. In the majority of cases days can elapse before the roentgenogram is made.

Confirmation of the dangers of breaking the above rules are found in approximately 30 per cent of the case records studied in the Poor Management Group. Many of these patients were moved from the emergency room to the adjacent x-ray room for x-rays of the skull, and then often for x-rays of suspected associated fractures. The latter were frequently reduced before the patient was sent to bed. The present method of treating compound fractures of the extremities by immediate debridement, reduction and closure before six hours has elapsed was followed by many of these surgeons in spite of the presence of brain injury. The death rate in skull fractures with associated compound fractures jumped to 51 per cent in the Poor Management Group because of this practice. The only associated injury needing emergency operative treatment is a ruptured viscus, where death is threatened because of excessive hemorrhage.

Postural Drainage or Aspiration are life-saving measures for many of these patients during the first six hours. The brain injury case frequently vomits, and often vomitus remains in the throat. Bleeding from the nose and mouth adds blood to the contents of the throat. Mucus from the lungs still further chokes the patient. Turning such patients on their side or abdomen with the head hanging down will allow a surprising amount of fluid to escape in many instances. The aspirator, when available, can be used to keep the throat clear. Peet[2], of Michigan, claims that many deaths from brain injuries are due to neglect of these measures. Several of the case records in the Good and Average Management Groups mentioned this procedure, but it was not mentioned once in the Poor Management Group.

Oxygen: The administration of oxygen is indicated definitely in many cases of cerebral shock. Continued unconsciousness, especially deep coma, is indicative of cerebral ischemia. Visualize the contused brain or the brain with a localized hemorrhage surrounded by an increased amount of spinal fluid, often bloody, with accumulated fluid in the perivascular spaces—a cerebral edema—all compressed within an inflexible bony cast. There is little room for entrance of cerebral arterial blood or escape of cerebral venous blood. A condition comparable to ischemia in an injured extremity confined in a tight plaster cast is present. A cerebral anoxia accompanies such a condition of affairs. Note how frequently such an unconscious patient is cyanotic. The profession universally has adopted the use of oxygen in coronary thrombosis, but has been very slow to recognize its value in the cerebral anoxia of brain injuries. In the 750 cases treated in the Poor Management Group oxygen administration was shown in only 12 cases. Oxygen has been neglected too often in the author's cases, and the same was true in the Good and Average Management Groups. I prefer to administer oxygen by the nasal catheter or mask method since the oxygen tent interferes with frequent examinations and close observation.

Restore Blood Volume: In shock there is always lowered blood volume. This evidence of ordinary shock usually accompanies cerebral shock. The restoration of blood volume as quickly as possible is one of our time-honored methods of overcoming shock. This can be accomplished by any one of the following methods, some of which are contraindicated, however, in the presence of brain damage:

A. *Normal salt solution* or *5 to 10 per cent glucose solution* administered intravenously in 1,500 to 2,000 cc. amounts will rapidly restore blood volume, and these have been used for years for this purpose. It is difficult to control a certain amount of spilling of such large quantities of fluids from the blood vessels into the body tissues. Thus, in brain injuries where the control of cerebral edema is so essential the use of such quantities of fluid is contraindicated, yet many of the case records in the Average and Poor Management Groups showed that this was still a general practice.

B. *Hypertonic solutions*: It is a well-known fact that hypertonic solutions injected intravenously will result in a certain amount of dehydration of the tissues by drawing fluid from these tissues into the blood stream. This not only causes a certain amount of dehydration, but the low blood volume is at once restored by this method. The fluid thus drawn into the vessels comes from the fluid reservoirs of the body, the largest of which is the cerebrospinal fluid bed, as pointed out by the late Dr. George Swift.[3] Therefore, the early injection of a hypertonic solution will not only decrease cerebral edema, but it will decrease the amount of spinal fluid and at the same time will help overcome shock by restoring blood volume. A decade or more ago 15 per cent salt solution or a 10 per cent magnesium sulfate solution was frequently

[2] Peet, Max M.: In Discussion of Mock's A. M. A. Paper, Vol. 120, pp. 504, (Oct. 17) 1942.

[3] Swift, Geo. W., and Berens, S. N.: Cerebrospinal Injuries, Detailed Study of 1,433 Cases, *J. A. M. A.*, **111**: No. 16, 1448-1452, (October 15) 1938.

used for this purpose. Both of these agents were found dangerous and have been discarded. Only 1.5 per cent of the case records of the entire 3,106 cases reviewed showed the use of 10 per cent magnesium sulfate intramuscularly or intravenously. When used the patient usually died. This may not have been the fault of the magnesium sulfate, although it is suggestive. The fact that the great majority of the profession has ceased to use these two agents condemns them.

Fifty cc. of 50 per cent glucose intravenously was the hypertonic solution used in 82 per cent of the cases where the records showed the use of any such agents. *Fifty cc. of 50 per cent sucrose* was used in the remaining 18 per cent, thus indicating the preference for glucose over sucrose by the majority of the profession. Both are excellent means for restoring blood volume and overcoming shock. The glucose will maintain blood volume longer than sucrose, since the latter is eliminated more rapidly through the kidneys. If the 50 per cent glucose solution is repeated as a dehydrating agent two or more times, there may be such an accumulation of fluid within the blood vessels that a reverse osmosis occurs, thus contributing to edema of the tissues. Therefore, elimination through the bowels must always be stimulated when this preparation is used for dehydration. Thus, four ounces of a 50 per cent magnesium sulfate solution is given as a retention enema whenever glucose is repeated. The first dose of 50 per cent glucose is given almost routinely to every head injury case entering my service, as a means of preventing or overcoming cerebral shock. Whether or not it is repeated depends upon the subsequent signs and symptoms which may indicate the need of further dehydration. Not infrequently in the presence of severe shock 250 to 500 cc. of normal salt solution is administered in addition to the 50 per cent glucose, in order to further hasten restoration of blood volume. Large quantities of normal salt or 5 per cent glucose are never given.

C. *Blood transfusion* is one of the best methods of restoring blood volume and overcoming shock. In the case of brain injuries with severe associated injuries, where the shock is profound, a blood transfusion is often life-saving. Whereas we felt on our service that we were quite alert in using this method, yet I found the surgeons treating the cases in the Good Management Group were more alive to its advantages. Blood transfusions were used occasionally in the Average Management Group and seldom in the Poor Management Group.

D. *Blood plasma:* During this wartime most of our hospitals have access to blood plasma banks. Furthermore, dried human serum can be purchased and kept on hand in any hospital. Blood plasma or concentrated serum will restore blood volume, overcome shock and will have a certain amount of dehydrating effect, thus limiting cerebral edema.

J. W. A. Turner[4] has reported on the use of concentrated serum as a dehydrating agent in cerebral injuries, the result of bombings in London. As time goes on I predict that in our more serious cases we will use concentrated blood serum more and the hypertonic sugar solutions less.

All of the above methods are concerned with the treatment of cerebral shock and the treatment of brain injury during the first six hours. Absolute rest, conserving the patient's strength, and avoid adding insult to injury are three common sense rules which will prevent many of these early deaths. All of the other measures mentioned above are useless if we neglect these. However, the study of many records shows that these latter three rules are frequently broken, for example:

A. In one hospital the records showed that twenty-four patients were moved from small outlying hospitals, usually because no one was responsible for paying for hospital care, to a county hospital during the first twenty-four hours. Twenty of these patients died. Many a surgeon would like to transfer a case from an outlying or distant hospital to the hospital where he works, not only for his own convenience but in order to keep the patient under closer personal observation. Such a move is dangerous and should not be done until absolutely safe. This usually means ten days, two weeks or longer.

B. The family is on an automobile trip when an accident occurs. One of the members suffers a skull fracture and is taken to a hospital thirty or forty miles from the city where the family resides. Their local surgeon is called. The family wants to move the patient back to the city to the surgeon's hospital. The surgeon's time and desire indicate the rationale of such a move, but he must be adamant against himself and the family if he will avoid trouble for his patient. I have collected more than a dozen cases where such early moves were made under these circumstances with the patients dying. Remember, *the surgeon must go to the skull fracture, never the skull fracture to the surgeon.*

SEDATION: Morphine has been the time-honored remedy in the treatment of shock and hemorrhage for generations. In the first fifteen years of my practice I dare say that morphine was administered to every one of my skull fracture cases. In the last fifteen or more years it practically never has been used. I say "practically" because I can recall two patients where, in desperation for control of their delirium, I turned to morphine—both died. For years I seldom had a consultation on a

[4] Turner, J. W. A.: Concentrated Serum in Head Injuries, *Lancet*, Vol. *CCXLI*. 557-559, (November 8) 1941.

brain injury case without finding that morphine had been administered. It is used less often today, but still far too frequently. Given a serious brain injury one can always find evidence of respiratory depression. Morphine adds to this depression. Frequently following the administration of morphine a Cheyne-Stokes type of respiration develops and the patient quietly passes out of the picture. This is especially true if two or three doses of morphine are given because of marked delirium during the first twelve to eighteen hours, yet several hospital records surveyed showed such practice.

Reviewing each individual record where sedatives were used in each of the three management groups revealed that morphine invariably increased the mortality rate over the normal rate for that particular group. Thus, in hospitals A to D morphine was used in 2 to 21 per cent of their cases. The gross mortality rates in this group varied from 17 to 21 per cent, while the mortality rate among the patients receiving morphine was 25 per cent. Compare this with hospitals J to S where morphine was used in 30 to 82 per cent of their cases. The gross mortality rates in this management group varied from 30 to 42 per cent, while the mortality rates among the patients receiving morphine varied from 36 to 50 per cent.

It is true that sedatives seem imperative in many cases. However, extreme restlessness or even delirium or the severe headaches so often complained of can be controlled far better by the judicious use of dehydrating agents or a spinal puncture. The swelling and compression of the component elements inside the skull account for these signs and symptoms. These conditions can be relieved, often permanently, by the intravenous injection of 50 cc. of 50 per cent glucose or sucrose or by the drainage of 30 to 60 cc. of spinal fluid. A surprisingly large number of the nurses' or interns' notes on the hospital charts studied testified to the almost miraculous relief of such signs or symptoms following one or the other of these procedures. Delay of their use until medullary compression is established accounts for their ineffectiveness.

Because of the patient's extreme restlessness or delirium when first admitted to the hospital, many of the sedatives were administered during the first one or two hours after admission. This is the most dangerous period for sedation and the most profitable period for the administration of glucose or sucrose and frequently for a spinal puncture. If, after these procedures have been done, the patient continues extremely restless or delirious some sedation may become necessary. From a study of sedation in the 3,106 collected cases the following drugs, in their order named, seemed to have the least deleterious effects: barbiturates, codeine, paraldehyde, chloral or chloral and bromide.

Oversedation: It is noteworthy that the surgeons who resort to the early use of sedatives usually continue sedation often to an excessive amount if the patient lives long enough. Oversedation was checked against each hospital record when morphine was used more than three times in any one twenty-four-hour period or when any of the other above sedatives were administered more than five times in a similar period. The death rate among those classed as "*patients receiving oversedation*" increased 9 per cent in the Good Management Group to 13 per cent in the Poor Management Group. Without question oversedation is responsible for many of our brain injury deaths.

Anesthetics: Just as in sedatives, practically all general anesthetics have a marked depressing effect upon the cerebral vital centers. While operations under local anesthesia in the first few hours following injury may add insult to injury, yet operations under general anesthesia are absolutely dangerous and definitely contraindicated except in extreme emergencies. Unquestionably this is the reason that so many cases with early operations on the skull and brain usually die. It accounts for the deaths which follow the early operations on compound fractures in the presence of brain injury and similar associated injuries.

All that has been said heretofore applies chiefly to the emergency treatment of the brain injury case during the first six hours—the most dangerous period following brain injuries as revealed by the preponderance of deaths therein. In those hospitals having mortality rates of over 30 per cent in skull fracture—brain injury cases, I am convinced that the common sense measures outlined above combined with close observation and quick action, if the emergency arises, would reduce their mortality rates at least 25 per cent or more. The subsequent management of the brain injury case after this period demands continued close observation and the judicious use of dehydration, spinal drainage or operation whenever indicated by the signs and symptoms of the individual case.

OBSERVATION AND SPECIFIC TREATMENT

Unless the patient has a compound fracture or a definitely palpable depressed fracture or prima facie evidence of a basal skull fracture, such as bleeding from the ears, one is unable to state whether a skull fracture is present or not. We have already shown that it is foolhardy to try to ascertain the presence of skull fracture by x-ray during the first few hours and, usually, the first few days. Therefore, one must evaluate the extent of the brain injury, which is the all-important factor, by the signs and symptoms presented by each individual case.

Any head injury which renders the patient *unconscious* or causes varying degrees of disturbed consciousness, such as dazed, stuporous, confused, restless, or delirious, is definitely a brain injury case. If the period of unconsciousness is of only a few minutes' duration and thereafter shows definite and progressive improvement, often with a retrograde amnesia as the only aftermath, then

one is warranted in considering the case a simple *concussion*. The *concussion syndrome* undoubtedly is present in all brain injuries, but usually it is masked by the more severe signs and symptoms of contusion, laceration or hemorrhage. A patient with no other evidence of brain injury but that of concussion should be kept under observation for at least two days to one week. Many deaths occur from allowing patients supposedly with simple concussion to leave the hospital the first day.

UNCONSCIOUSNESS or disturbed consciousness, which persists or grows worse, is indicative of a more serious brain injury. The actual type of brain pathology can be diagnosed in a few instances by well recognized signs, but in the majority of cases one can only visualize the disturbed physiology and the probable lesions responsible for the signs and symptoms and classify these under the general heading of *increased intracranial pressure*. When the coma is extreme, often accompanied by incontinence of urine or feces, and impending death is present, one can suspect severe lacerations and massive hemorrhage or multiple petechial hemorrhages involving vital centers. In between the two extremes of concussion and the latter condition we find the great preponderance of brain injuries which are curable if properly managed.

As early as 1931 the author[5] classified his skull fracture-brain injury cases into four treatment groups as indicated by the signs and symptoms which influenced the type of treatment given. That classification will be continued in this paper.

GROUP I

Some head injuries without skull fractures sustain extreme brain damage, yet many such head injuries show only the slightest concussion and thereafter have absolutely no signs or symptoms of brain injury. On the other hand, all but 6 per cent of skull fractures showed some signs of brain damage. Head injuries with suspected brain damage and these 6 per cent of skull fractures must be kept under close observation at absolute rest until one is sure that no late pathological cerebral manifestations will occur. Such patients do not need dehydration, spinal drainage or operation. Thus, I have classified these as my *Group I or Rest Treatment Only* group. In my series of approximately 500 cases no patient treated in Group I died.

In the Poor Management Group of the surveyed records an average of 16 per cent of the 750 cases received rest treatment only. Twenty, or 16 per cent, of their Group I cases died. Absolutely nothing was done for these patients although a few lived as long as three days. The surgeons thus treating these patients evidently belonged to the "do nothing—let alone" school of management. This accounts for some of the increase in the death rate of the Poor Management Group.

GROUP II

Fifty per cent of the author's patients were treated in *Group II—the Medical Management Group*. Certain patients died before any treatment other than heat, a stimulant or the first injection of a hypertonic solution could be given. The fact that this medication was used placed them in Group II. A few other cases who died before any management could be given were likewise placed in Group II. Thus 25 of my first six-hour deaths are found in this group. A careful review of some of these records has forced the conclusion that spinal drainage, if done, even in the face of impending death, might have saved some of these patients.

Patients who have cerebral shock combined with a short period of unconsciousness and with no untoward changes in the pulse, respiration, temperature or blood pressure and who have no persistent focal signs and show evidence of improvement after the shock is overcome or after the initial dose of 50 per cent glucose solution intravenously, remain in Group II throughout the course of their management.

CLOSE OBSERVATION AND CHARTING THE COURSE is absolutely necessary if one is to know that these signs and symptoms remain stabilized or show improvement. Thus, every head injury case entering our service has the pulse, respiration, temperature and blood pressure charted every thirty minutes to one hour, depending upon the seriousness of the case. Several times a day the condition of the pupils and the reflexes are checked and focal signs sought. Changes in any signs are recorded on the chart.

In the Poor Management Group less than half of the 750 hospital records showed pulse, respiration and temperature recorded only three times, and many only twice during any twenty-four-hour period. More than 50 per cent of these records never had a blood pressure reading chartered. Such lack of observation begets poor management.

About one-half of our Group II cases will continue to improve without any other treatment except an occasional magnesium sulfate enema or a dose of aspirin for the headache. About one-half of the patients will show a tendency to slowed pulse or a pulse and respiration rate that shows signs of increasing or a low diastolic blood pressure. Their unconsciousness or a confused state may persist. A dilated pupil may be present on one side. To these a second dose of 50 cc. of 50 per cent glucose is given intravenously in the course of the first six or eight hours, followed by a four-ounce retention enema of 50 per cent magnesium sulfate. If the above signs remain approximately the same and show no evidence of growing

[5] Mock, Harry E.: The Management of Skull Fractures and Intracranial Injuries, *J. A. M. A.*, **97**: 1430-36, (November 14) 1931.

worse, the glucose and magnesium sulfate may be repeated in another six or eight hours.

Close observation is continued until the patient is out of danger. If findings indicate a return of increased intracranial pressure, the 50 cc. of 50 per cent glucose and magnesium sulfate is repeated. If and when to repeat this medication depends altogether upon the signs and symptoms of the individual case.

Restriction of Fluids to 1,000 cc. for forty-eight hours and afterwards to 1,500 to 2,000 cc. is advocated by some. Unless the fluid balance and blood chemistry are watched very closely overdehydration and a state of alkalosis can easily develop. Whereas we practiced this marked restriction of fluids a few years ago, today our fluid intake is limited to somewhere between 1,500 and 2,500 cc., according to the age and condition of the patient and the temperature of the air. Recently I observed a patient whose fluids had been restricted to 1,500 cc. per day who had passed from a fairly normal condition to extreme restlessness with occasional vomiting. I saw him at the end of three days when the temperature had ranged from 92° to 96° and the humidity was extreme. A spinal puncture was done and very little spinal fluid obtained. I then asked the nurse to give the patient a drink of water. He grabbed the glass and emptied it at one gulp. A second glass was handed to him and he drank it like a man dying of thirst. The fluid intake was increased and this patient again returned to a normal convalescence. Fluids should never be pushed in the presence of a brain injury lest we add to cerebral edema. Conversely, fluids should never be restricted to the point of causing overdehydration.

In the Good Management Group of our 3,106 cases only 36 per cent were treated in Group II. However, 50 per cent of their patients received spinal drainage as against the author's 35.5 per cent. On the other hand, 51 per cent of the patients in the Poor Management Group received some type of dehydration while only 23 per cent of their cases received spinal puncture. Referring back to Chart I you will note that the Poor Management Group had a grade of 38 per cent for adequate dehydration compared with a grade of 90 per cent for the Good Management Group. In other words, 51 per cent of the patients in the Poor Management Group had an occasional dose of 50 cc. of 50 per cent glucose or sucrose, often administered after two or three days, while a few other case records showed an order for 50 cc. of 50 per cent glucose every six hours, and it was repeated for days or until the patient was probably overdehydrated. It would be far safer for more surgeons to do more spinal punctures with drainage of a sufficient amount of fluid than to depend upon such inadequate dehydration or such risks of overdehydration. On the other hand, if you learn to use dehydration properly it will save many of your patients the necessity of a spinal puncture.

GROUP III

This group is made up of the patients who receive spinal drainage. As a rule the spinal puncture was done after attempts to control the patient by dehydration. The great mistake is made in persisting in these attempts too long and using spinal drainage only as a last resort.

Again, visualize the three volumes within the skull, namely, the brain volume, the blood volume and the cerebrospinal fluid volume, as so graphically described by Temple Fay.[6] An injury to the brain occurs followed by a certain amount of ecchymosis or hemorrhage and localized or generalized swelling, quite similar to the sequence of events following a blow to the eye—the black eye of the brain. Due to disturbed physiology there is an increase in spinal fluid volume—increased production or decreased elimination. The third volume, the blood supply of the brain, is restricted in inflow and outflow. The weight of such a brain may cause it to herniate through the foramen magnum, the only opening for escape. This is to be feared far more than herniation from a spinal tap. When you perform a spinal puncture and remove from 20 to 60 cc. of spinal fluid, you immediately make room for that much increase in blood supply. This may be only a temporary relief, but if repeated often enough or when accompanied with dehydration efforts it may give time for the edema of the brain to subside, for the contused area to heal, and for the blood supply to become stabilized. There is no other way except probably by operation to make room for the blood and brain volumes within the bony cast, and spinal puncture is certainly far safer.

Few procedures in surgery have aroused greater controversy than spinal drainage. When it was first advocated many surgeons, especially brain surgeons who had witnessed dire results with it in the presence of brain tumor, condemned the method. Most of those who condemned it now use it and praise it. A few years ago I sought the opinion of fifteen outstanding neurological surgeons as to whether or not they favored spinal drainage. Thirteen of these surgeons believed that in selected cases it was a life-saving measure, while only two utterly opposed it.

Munro, in his book,[7] strongly advocates spinal drainage for those patients who do not shortly yield to dehydration treatment.

Rowlette and Weiner,[8] on their service in the St. Louis City Hospital, have a standing order for a spinal tap on every serious head injury or skull fracture case still unconscious six hours after admission, and they drain the patients dry. They do not hesitate to repeat the procedure every six hours

[6] Fay, Temple: The Treatment of Acute and Chronic Cases of Cerebral Trauma, by Methods of Dehydration, *Ann. Surg.*, **101**: No. 1., (January) 1935.

[7] Munro, Donald: Cranio-Cerebral Injuries, Oxford Medical Publications, 938.

[8] Rowlette, A. P., and Weiner, D. O.: Craniocerebral Injury, *S. G. and O.*, **72**: No. 3, 551-556 (March) 1941.

if necessary. This may be considered radical by many of us, but it is a far wiser method than to leave the patients alone and let them die without benefit of spinal tap as is practiced by too many.

Rowbotham,[9] of London, depends upon dehydration only in the milder concussion cases. He states that whenever a patient remains unconscious for twelve hours spinal drainage is used. The amount of fluid he removes depends upon the manometer reading. He brings the spinal fluid pressure to normal. If the pressure is high or the unconsciousness persists he repeats the lumbar puncture two or three times daily.

While only 35.5 per cent of our series of cases had spinal drainage, yet, regardless of the manometer reading, a sufficient amount of fluid, usually 40 to 60 cc., was removed to make more room for blood supply. The procedure was repeated if the signs and symptoms indicating its need persisted. I am using spinal drainage oftener now than I did ten years ago.

The above citations are given in an effort to overcome apathy or fear for spinal drainage, which is so prevalent throughout the general profession.

INDICATIONS: When unconsciousness or disturbed consciousness, delirium, or extreme restlessness persists for twelve to twenty-four hours, in spite of medical management, spinal drainage should be used. The deeper the coma, or if the above signs and symptoms appear early or grow worse, or convulsions develop, the quicker should spinal drainage be resorted to. When the patient lies quietly unconscious and the hourly observation of the pulse and respirations shows a tendency to slow and then to become very rapid or of the Cheyne-Stokes variety, or the systolic pressure begins to climb while the diastolic drops, or the temperature passes 102° then one should not hesitate to institute spinal drainage. If the spinal fluid is bloody or the spinal pressure is markedly elevated, the tap should be repeated within the next twelve to twenty-four hours, or even earlier, depending upon the degree of danger as indicated by the signs and symptoms. A persistent dilated pupil or a persistent Babinski sign or complete absence of, or very sluggish, reflexes may be the only indication, but they are sufficient to justify spinal drainage. An aphasia, a facial paralysis, twitchings in an extremity or even generalized convulsions warrant spinal drainage. However, if these focal signs persist one should not continue doing lumbar punctures but should resort to the indicated operation, often an exploratory decompression.

The Good Management Group of my surveyed series of cases performed lumbar puncture in 50 per cent of their patients and withdrew an average of 40 cc. of spinal fluid. Eighty-four per cent of the author's Group III cases, and 80 per cent of the Good Management Group cases received their puncture in the first twenty-four hour period. Remember that Group III includes the far more serious brain injury cases, yet the death rate in the author's spinal puncture group was only 1.5 per cent greater than the death rate for his entire series of cases, and only 2 per cent greater in the Good Management Group. This is one of our strongest arguments against alleged dangers of the method. Of course, if it is done without local anesthesia, if the patients are roughly handled, or if the fluid is removed too rapidly, even spinal puncture may be a dangerous insult to these patients.

The Average Management Group did lumbar punctures in 32 per cent of their cases, 66 per cent of them within the first twenty-four hours, but only an average of 28 cc. of fluid was removed. Their death rate in the spinal puncture group was 37 per cent.

The Poor Management Group did spinal punctures in only 19 per cent of their cases. Only 20 per cent of these were done in the first twenty-four hours and only an average of 7 cc. of spinal fluid was drained. *The death rate in their spinal puncture group was 78 per cent.*

No stronger arguments could be presented to prove the value of spinal drainage, the importance of doing it in the first twenty-four hours when indicated, and the necessity of removing a sufficient amount of spinal fluid to overcome the cerebral ischemia and anoxia.

GROUP IV

Whereas in my first 100 skull fracture cases reported in 1931[5] my operative rate was 13 per cent, it is now reduced to 9 per cent as I approach my 400th case. Whereas in my first 100 cases four of the operations were performed in the first twenty-four hours, in the remaining 300 cases only four were operated in that period—three for compound skull fractures and one for an extradural hemorrhage.

With many the pendulum for conservative nonoperative treatment has swung too far. Operative rates as low as 4 per cent reported in the literature and found in several of the hospital series studied indicate that a few patients with middle meningeal hemorrhage, subdural hemorrhage and certain depressed fractures are being overlooked, usually with death resulting.

Dandy[10] still stresses the need for subtemporal decompression in approximately 10 per cent of serious head injury cases. Since skull fractures have a greater number of serious brain injuries, it is possible that his subtemporal decompression rate would be higher in a series of this type.

Munro[7] shows an operative rate of 36.9 per cent chiefly due to his advocacy of exploratory decompressions in the search for subdural hemorrhages. Unquestionably many subdural hemorrhages are

[9] Rowbotham, G. F.: *Acute Injuries of the Head,* The Williams-Wilkins Company, 1942.

[10] Dandy, Walter E.: Diagnosis and Treatment of Injuries to the Head, *J. A. M. A.* **101**: 772-775 (September) 1933.

overlooked. It must be remembered that few acute subdural hemorrhages operated in the first several hours ever recover. The profession owes much to Munro for stressing this pathological entity. However, it would be unfortunate if the majority of surgeons performed subtemporal decompressions or exploratory decompressions as frequently as advocated by these two very-qualified surgeons.

The operative rate in the Good Management Group of our surveyed series averaged 5.5 per cent as against an average of 10 per cent and 9.5 per cent in the Average and Poor Management Groups. The highest operative rate in the Good Management Group was 7 per cent as against the highest operative rate of 20 per cent in the Poor Management Group. In my opinion the conservatism of the former is far preferable to the radicalism of the latter.

INDICATIONS FOR OPERATION:

1. Markedly depressed skull fractures, simple and compound.
2. Extradural hemorrhage, rarely apparent in first twenty-four hours.
3. Subdural hemorrhage or subdural collection of fluid, both of which often give persistent late signs.
4. Subtemporal decompression — occasionally indicated but rarely in first twenty-four hours.
5. Exploratory decompression when signs persist in spite of spinal drainage—occasional case.

Certain operative rules[1] should be stressed as follows:

1. Seldom is operation indicated in the first twenty-four hours, except in the case of (a) a badly compounded skull fracture, or (b) a rare early progressive extradural hemorrhage. Both of these can be delayed until *cerebral shock* is overcome.
2. Many depressed skull fractures heal without operation, but all should be elevated after patient's condition warrants, except slightly depressed fractures, outside the rolandic area, without signs or symptoms.
3. Subtemporal decompression or bilateral exploration may become necessary when the patient fails to yield to all conservative treatment. Do not persist in conservative measures when the signs and symptoms definitely indicate the need for exploration.

Skull fractures and brain injuries with their associated traumas always will be a problem for the general physician and surgeon. These injuries are occurring with increasing frequency in every hamlet, village and city of the land. The majority of the cases are far removed from the medical centers where neurosurgeons practice. Over 50 per cent of the deaths resulting from brain injuries occur in the first twenty-four hours, and 60 per cent of these in the first six hours after the accident. Thus, it behooves all of us to become expert in the management of skull fractures and brain injuries, to the end that the high mortality rates resulting therefrom may be reduced to an even greater extent in the future than they have in the past.

ABSTRACT: TWO ENCOURAGING OUTLOOKS REPORTED FOR JUVENILE DIABETIC PATIENTS

Two encouraging outlooks for juveniles with diabetes are included in the findings reported in *The Journal of the American Medical Association* for September 19 by H. E. Eisele, M.D., St. Louis, based on a study by him of 73 juvenile diabetic patients surviving twenty years or more after the onset of the disease.

"Like the older patient, with onset of diabetes in adult life," Dr. Eisele says, "the juvenile diabetic patient has a constantly improving outlook for life and good health with the present day method of diabetic control and refined medical and surgical treatment. . . .

"A woman's chance for a healthy child after twenty years of diabetes with onset in childhood is becoming increasingly more favorable."

The data presented in his paper are said to be the first of this kind to be reported. The 73 patients were divided nearly evenly according to sex. The average age at onset of the diabetes for the group was 9.0 years for the males and 8.7 years for the females.

In his conclusions Dr. Eisele says:

"Bearing in mind that all these 73 juvenile patients developed diabetes before insulin became available and accordingly present physically the worst possible end results for this age group and duration, certain conclusions are permissible:

"The most important complication is the early appearance of arteriosclerosis. Thirty per cent of the members of this series who were examined roentgenologically showed peripheral arteriosclerosis; 55 per cent showed moderate to advanced ocular arteriosclerosis. Seventy per cent of the patients showing these changes have either hypertension or albuminuria or both at an average age of 29 years.

"Impaired physical development in childhood occurred in 16 per cent of this series. With present day diabetic control and endocrine therapy this problem becomes much less acute than formerly. The physical status of the average adult in this series appears favorable even though active supplementary endocrine treatment in addition to insulin was started relatively late in the development of those physically retarded. The average male adult weighs 146 pounds . . . and stands 5 feet 7½ inches . . . the average woman weighs 127 pounds . . . and stands 5 feet 4 inches. . . .

"Sex does not influence survival. The disease was hereditary in 62 per cent. Mental maladjustments are somewhat greater in the juvenile diabetic patient than in the nondiabetic person of this age.

"Infection has played a relatively minor role. Operative procedures may be done with little increased hazard over that in a nondiabetic group."

WARTIME INDUSTRIAL SURGERY*

N. K. FORSTER, M.D.
HAMMOND

Enough has already been written and said to indicate the increased importance of industrial medical practice to the needs of the vast production schedules of our manufacturing plants in wartime. Since, throughout the nation, these plants are almost wholly concerned with the output of war materials, it is obviously essential that their workers be provided with adequate medical services in order that their working efficiency may be maintained. The problems which have beset the manufacturers in adapting their plants to the production of war armaments have in turn become our problems in supplying personnel and means to care for the additional hazards which have arisen. This rapid change-over in industry has brought out the dangers of inexperience with new processes; and the speed of production, the longer hours, the employment of women, older men, physically handicapped employees and former relief workers have all added to the tremendous increases in medical and safety problems.

The depletion of trained workers through selective service requirements has shown its effect in production problems, and the shortage of professional personnel through enlistment in the armed forces indicates the necessity for rapidly establishing a program for the effective utilization of available medical personnel in industry. It has been repeatedly indicated and it is a self-evident fact that the requirements of the armed forces and those of industry, in-so-far as medical services are concerned, must be kept on an adequate basis of consideration of their needs, since the one cannot function without the productive efforts of the other.

We learn from the Bureau of Labor Statistics that there are now nine million persons engaged in wartime industries. By the end of 1942 the number will be fifteen million and in 1943 it will increase to twenty-three million. This is the greatest number of men and women employed in industry in the history of this nation. When, in addition, we learn that by the end of this year thirty-five thousand physicians and thirty-five thousand nurses will have joined the armed forces and that ultimately the need may reach sixty-five thousand, we wonder under what scheme or plan the needs of industry and civilian population are to be served. This is truly a dilemma that requires a mastermind for solution.

THE SCOPE OF INDUSTRIAL PRACTICE

"For a long time industrial practice has been considered as a left-handed offshoot of general medical practice. It has been felt that its only requirement was a superficial knowledge of hernias and trauma, and that industrial preventive medicine requires only a knowledge of somatic conditions." "It is not an exaggeration to state that 99 per cent of all doctors practice industrial medicine to some extent, and this includes those engaged in all specialties, even gynecology and obstetrics. The dermatologist must recognize the lesion as industrial in origin, the internist must identify the affection as metallic poisoning when it is occupational, the gynecologist and obstetrician must determine when and if the taxicab or street car accident caused the abortion, misplaced womb, backache, delayed or early period, or excessive bleeding."

"Less than 2 per cent of our profession limit their practice to industrial surgery alone, and probably 25 or 30 per cent major in industrial practice, while its influence and problems are felt by the entire profession." Despite this, industrial practice is a separate profession and one which requires special training if industry is to receive the benefits it has a right to expect. The education of the industrial physician today includes, in addition to his regular training as a doctor of medicine, such subjects as the engineering of ventilation, lighting, heating, and sanitation. He must have a knowledge of the ingredients and the toxic or disease-causing qualities of the materials and processes used in the industrial organization which he serves as well as of these factors and properties in general. He must have a knowledge of plant sanitation problems and their solution, of working conditions, of accident and occupational disease prevention methods, of job placement problems, of compensation laws and legal complications. It is not enough to be able to make a physical examination and to change a dressing or suture a wound. He must be competent in the diagnosis and treatment of occupational diseases and the handling of all kinds of traumatic lesions. He must be well versed in rehabilitation measures and have a good working knowledge of roentgenology and physical therapy methods. Finally, he should have administrative ability and be able to supervise the keeping of medical records and statistics.

If there are any doubters about the dissimilarity between general medicine and industrial medicine, let them, as a test of their knowledge, answer the questions propounded by Johnstone in discussing this common misapprehension.

"What are the signs and symptoms attributable to the illness allegedly arising from the occupation of a furrier, fumigator, sandblaster, welder, maker of felt hats, abrasive soap maker, cotton sorter or degreaser (textile): from employment with re-

* Presented before the section on surgery of the Indiana State Medical Association at French Lick on September 30, 1942.

frigeration, vulcanizing or photography, or from working with rayon, benzene, cement dust, carbon disulfide, carbon tetrachloride, aniline dyes, pottery, chromium or methyl chloride or with solutions used in electroplating, glass etching or dry cleaning?

"Having listed these signs and symptoms, state whether the illness is apt to be acute and temporary, without sequellae; sudden, with death ensuing or permanent disability resulting; or insidious, with or without permanent disability."

Add to these the new and complex problems that have arisen in war industry associated with the handling of toluene, the use of cutting oils, high-speed grinding operations, the increased use of the welding arc and its attendant dangers, sand replacing shot-blasting and the use of magnesium and other metals in so many operations. Another condition which has presented the need for additional application of medical knowledge is found in the fatigue factor resulting in lessened efficiency and increased accidents. The necessity for an adequate and well-balanced diet calls for nutritional suggestions from the medical attendant. All of these and more are the elements which go into the increase of absenteeism, and this is the bugbear of production. It has been estimated that industrial workers engaged directly in the manufacture of military necessities may lose as much as ninety million days of work in 1942 because of illness and accidents. This represents enough time to build 7,200 four-engined "flying fortresses" for the Army. So it beomes the job of the industrial physician to see that absenteeism is reduced to a minimum in order that the stream of guns, tanks, ships, and planes will flow with increasing and uninterrupted rapidity. No wonder then that the "industrial physician may well feel that if war conditions do not overwhelm him by their magnitude, they will overcome him by their complexity." The job of the industrial physician is, therefore, one of a specialist in general practice and a general practitioner of a specialty. Our interest in this section lies, primarily, with the surgical aspect of industrial practice and it is to this portion of the work that your consideration is now directed.

NATURE OF OCCUPATIONAL INJURIES

The nature of occupational injuries has not changed particularly because of the war. However, the incidence has increased to a considerable degree and the hazards have been greatly multiplied. In 1941, approximately 18,000 people were killed in industrial accidents, nearly 90,000 suffered permanent impairment, and 1,782,000 had temporary disabilities lasting a day or more. Estimates now indicate an increase of 8 per cent in fatal occupational acidents and more than 16 per cent in non-fatal injuries. The reasons for this increase lie in the wide difference in products and processes, coupled with new developments and techniques; the lack of experience in dealing with these new phases; the element of speed in production; the necessity for long hours and overtime; the handling of heavy materials for armaments; the use of new and unfamiliar compounds and processes; the increased hazards of breakage and flying particles associated with the employment of tough, wear-resisting milling-cutters, drills, reamers and boring tools; the high abrasive resistance of grinding wheels necessary to provide a better degree of surface finish on harder materials; and the increased use of heat-treating processes in hardening materials. When to these are added the factors of new inexperienced workers, women, partially handicapped employes, former relief workers, older men, fatigue, malnutrition, unsatisfactory home arrangements, financial worries, shop friction and numerous other elements, it is readily understood why an increase in accident rates is to be expected.

To attempt to cover the entire field of traumatic injuries in this short survey is manifestly impossible, but attention may be directed to a few of the salient points regarding some of them, particularly as they have been emphasized in wartime.

A recent recapitulation of injuries sustained by employes in a large plant engaged in war production of armaments revealed the following percentages as related to the parts of the body involved, and this coincides fairly well with figures from averages taken throughout the country: eyes 13.0%, head 5.6%, arms 7.8%, trunk 3.2%, hands 12.3%, fingers 48.5%, legs 6.0%, feet 2.2%, toes 0.9%, and general 0.5%.

EYE INJURIES

The conservation of manpower and the reduction of lost time demands that industrial surgery should place first on the list of its responsibilities those preventive measures and safeguards that may be essential to the particular industry.

Despite the demand in many plants that goggles be worn, foreign bodies in the eye remains one of the most common of industrial injuries. About 2,000 eyes are lost in industrial accidents each year either through removal or by having the vision entirely destroyed, and it has been estimated that there are 300,000 accidents to the eyes causing lost time of one day or more.

In our most recent series industrial eye injuries comprised 13 per cent of the total. This is in a plant where careful pre-employment examinations are made, an alert safety department is maintained, and where every employe is compelled, on penalty of losing his job, to wear goggles with case-hardened lenses. Where indicated these lenses are ground to the individual prescription and fitted to the wearer's face.

Our routine procedure in the handling of such cases is as follows:

1. All eye injuries are to report at once to the dispensary. No attempt at removal is to be made by a foreman or fellow-worker.
2. The first aid attendant, physician or nurse,

must wash their hands thoroughly before rendering treatment.

3. A preliminary inspection is made to determine the extent and nature of the injury and the visual acuity.
4. In the case of a free floating foreign body or one superficially attached, the nurse may remove it by gently swabbing it out with a sterile applicator dipped in boric solution. All other cases must be seen by the plant physician.
5. A few drops of 2 per cent butyn solution is routinely used for local anesthesia.
6. Embedded particles are removed by the use of a spud, including all rust particles or charred tissue.
7. In the case of mild conjunctival injection, holocaine and ephedrine ointment is applied and a protective pad worn for twenty-four hours.
8. In the case of severe inflammatory reaction 1 per cent atropin is instilled, either in solution or in ointment form, and a protective pad worn until the inflammation has subsided.
9. All cases are seen twice daily for as long a time as may be indicated.
10. In cases of deeply embedded foreign bodies or in any instance where doubt may exist, the patient is referred at once to a competent ophthalmologist.

We have discontinued the routine use of 5 per cent sulfathiazole ointment in eyes because of the large number which were apparently irritated by this medication.

For cases of ultraviolet burns of the eye sustained through the use of the welding arc, we have employed holocaine and ephedrine ointment with good results, better, we believe, than formerly obtained through the use of 2 per cent solution of sodium biborate or castor oil. We have had no occasion to employ vitamin A and D ophthalmic ointment. We rarely employ an anesthetic except in severe cases, and, of course, dark glasses are worn until the irritation has subsided.

HEAD INJURIES

Injuries to the head have comprised 5.6 per cent of our total industrial injuries. Of these, fortunately, less than one-fourth of one per cent have been skull fractures. In view of the splendid presentation on this subject, by Dr. Harry Mock, whose paper is published in this issue, it would be presumptious on my part to attempt to outline further the accepted methods of care of these cases. However, some of the points he has called to our attention may well be emphasized. These start with the warning to regard all head injuries, however trivial, as serious until proved otherwise. The necessity for this has arisen from the sudden death of a number of cases, after a lapse of a few hours or days, from extradural or subdural hemorrhage. X-ray examination is of prime importance in these cases, but even the negative x-ray should not entirely discount the serious possibilities until close observation has removed all doubt. Consequently, every case of head injury which has had a period of disturbed consciousness should be placed at absolute rest and under close observation until all findings indicate freedom from serious injury. In the treatment of severe cerebral injuries emphasis has been placed upon the use of the following as constituting good management:

1. Absolute rest in bed.
2. Hypertonic solutions such as 50 cc. of 50 per cent glucose solution intravenously every six hours.
3. Blood plasma and transfusions.
4. Postural drainage to relieve accumulated mucus or blood from the respiratory passages, or the use of a suction apparatus.
5. Administration of oxygen.
6. Spinal puncture in the presence of signs of increasing intracranial pressure.
7. X-ray examination only when cerebral shock has subsided.
8. All surgical procedures for associated injuries to be delayed until recovery from cerebral shock.
9. Avoid the use of sedatives and rely on dehydration methods and spinal puncture if indicated.
10. Use stimulants sparingly, and rely on restoration of blood volume and shock therapy.
11. The use of inhalators, such as the Sherman type, is suggested in respiratory failure. Proper cleansing of the respiratory passages through suction is a preliminary necessity.
12. The use of combined tetanus and gas antitoxins in contaminated cases.
13. Feeding to be maintained through the Levin tube with fluids restricted to 1,500 or 2,000 cc.
14. Care of complicating factors as they arise.
15. Operative interference is reserved for markedly depressed skull fractures, extradural hemorrhage and subdural hemorrhage. Rarely should any operative procedure be resorted to early.

In the treatment of scalp wounds the hair is shaved and the area gently scrubbed with soap and water. Local anesthesia is employed and the debridement of the dirty edges carried out. The wound is irrigated with normal saline. Sulfanilamide is then dusted in the wound and primary closure carried out. In any instance where there is suspicion of penetration or possible fracture, x-rays are taken.

This brief and incomplete consideration of head injuries can be closed in no better words than those of Mock: "Today we are confronted with the possibility of major catastrophes to the industrial army and to the civilian population as

a result of sabotage, bombings and other eventualities of the war. When and if such catastrophes occur, the majority of the profession will be forced to act as general surgeons. It is timely that we think of these possibilities. It behooves us to develop great surgical judgment in the presence of terrific emergencies so that we will not act precipitately but with coolness and foresight. Let our treatment be to the end that no act of ours may add the additional insult to injury that spells death for the severely wounded."

INJURIES TO THE JAW AND FACE REGION

In referring to fractures of the jaw and injuries of the face, mouth and teeth, there is but one comment that seems to be indicated. Beyond the immediate first aid, directed toward the cleansing and approximation of minor wounds, I believe that these cases are best handled by immediate referral to the oral and plastic surgeons. So few of us are adequately trained in these branches, and so much depends upon their proper handling in order that a good result may be obtained, that it appears logical to depend upon those who have developed and are proficient in this phase of traumatic surgery.

CHEST INJURIES

One of the prevalent types of injuries resulting from the war and one which is likely to affect industrial workers as a result of the bombing of plants is the so-called "blast injury" to the chest. These injuries are defined as the compression and suction wave set up by the detonation of high explosives. The pathological lesion set up is that of traumatic hemorrhage of both lungs originating from torn alveolar capillaries, injured pleura and the lining of the bronchial tree. These injuries are serious and may result in death. The signs usually present are dyspnea, cyanosis, and expectoration of frothy, bloody fluid. In addition, the condition of chest injury shock is present, which differs from the usual shock picture where mental apathy predominates. Here the patient is alert, active and anxious. Moreover, these injuries usually occur without external evidences and may be overlooked. In the management of the cases it is evident that absolute rest is essential and that oxygen should be administered continuously as long as there is cyanosis and dyspnea. In the absence of marked shock, plasma and blood transfusions are not given, as they appear to increase the hemorrhage.

There are definite indications in the treatment of all chest injuries and they consist of:

1. The treatment of shock.
2. The arrest of hemorrhage.
3. The replacement of blood and fluids.
4. The restoration of the physiology and dynamics of the cardio-respiratory system.

The injuries to the chest wall in civil life are not often of the so-called "sucking type" where large openings are made by penetrating objects. They are, however, very frequent in warfare as a result of shrapnel and may, therefore, become more evident in industrial practice. The recommended treatment in these cases is the use of morphine, prompt closure of the opening, by suture if possible or by an occlusive dressing and, of course, shock therapy.

In general, the treament of chest injuries is directed toward the arrest of hemorrhage and the replacement of lost blood, and the restoration of normal function of the cardio-respiratory system. Operative procedures are immediately indicated in sucking wounds of the chest, persistent hemorrhage, tension pneumothorax and penetrating wounds of the heart.

FRACTURES

Fractures occurring in industry have one fact in common with war fractures in that many of them are compound and many are contaminated. Beyond this, and the further consideration that there is the all-important necessity of returning the industrial worker to his job at the earliest possible time, with a good functional result, the management of fractures seen in industry do not differ in principles from those treated in civil life. The problem of transportation and the application of suitable traction for this purpose, the first-aid principles, the debridement of the wound, the application of chemotherapy, the reduction and immobilization of the fracture, the administration of tetanus and gas bacillus antitoxin in compound cases, and the general and local convalescent care are all cardinal principles that cannot be stressed too often or too much. These simple statements, however, are but the headings for volumes that have to do with the proper definitive treatment of fractures. Since the necessities of war require the replacement of so many of our younger men in industrial work by those whose interests have been in other fields, it becomes of utmost importance that all those engaged in the practice of medicine intensify their interest in traumatic surgery and familiarize themselves with the principles of proper fracture management. This is imperative for those entering the armed forces, but it is also important from the industrial standpoint and from that of civilian defense as well.

SHOCK

No consideration of this type should fail to include mention of the more common manifestations of trauma. Among these, shock is the problem of first magnitude. We are all familiar with the changes that occur following severe hemorrhage, crushing injuries, extensive burns, penetrating chest wounds, severe fractures and prolonged and extensive major operations — the pallor, cyanosis, rapid thready pulse, cold sweat, clammy extremities, mental dullness and shallow gasping respirations. These signs tell us that the patient is already in profound shock. The effort is to quickly appraise the extent of injuries and, by such signs

as an early lowering of blood pressure, particularly the diastolic pressure, and the slowing of peripheral circulation and evidence of hemoconcentration, to recognize impending shock and administer shock therapy. Briefly, the measures directed toward the prevention and treatment of shock include:

1. Control of hemorrhage.
2. Adequate morphine (except in cerebral shock).
3. Correction of dehydration.
4. Splinting of fractures.
5. Pressure on crushed legs.
6. Head down position.
7. Vasoconstrictor drugs.
8. High concentrations of oxygen.
9. Conservation of body heat.
10. Intravenous saline and glucose.
11. Whole blood plasma, serum, and concentrated albumin.
12. The use of adrenal cortex extract.

With these measures in mind, no traumatic condition can be ignored from the standpoint of shock and they take precedence over all other procedures.

BURNS

There is a constant shifting in our attitude toward the proper management of burns. It is evident that the ideal treatment has not been achieved and that our choice must be guided by the individual case and the circumstances surrounding it. There is, however, general agreement upon certain surgical principles involved in their management. These include:

1. To prevent and combat shock.
2. To relieve pain with adequate doses of morphine.
3. To convert the contaminated burn into a clean wound through cleansing and debridement.
4. To employ local measures that will provide for prompt healing.
5. To keep the injured part at rest.
6. To avoid unfavorable sequellae.
7. To maintain adequate supportive measures for the patient.

The accepted choice of local measures ranges from the pressure-dressing method of Koch through tannic acid, tannic acid and silver nitrate, gentian violet, gentian violet and tannic acid, gentian violet and silver nitrate, triple dye of crystal violet, brilliant green and neutral acriflavine, and sulfonamide derivatives. Commercial preparations are available by the hundreds, all offering advantages and some disadvantages. Having satisfied good surgical principles, it appears that any treatment that includes adequate replacement of lost circulating blood plasma and conversion of the open wound to a promptly-healed closed one should suffice.

SOFT TISSUE INJURIES

Injuries to soft tissues will compose the bulk of those which the industrial surgeon is called upon to treat. Concepts regarding the treatment of these injuries have become well defined. Briefly they are:

1. Early treatment, at least within six to eight hours.
2. Inspection of extent of injury and determination of function.
3. Thorough cleansing of the wound with soap and water and saline irrigation.
4. Local anesthesia.
5. Complete debridement of all devitalized and dirty tissues.
6. Control of hemorrhage.
7. The application of sulfanilamide.
8. Primary closure where possible.
9. Local pressure dressing to eliminate dead space.
10. External splinting.

The observance of these principles will in the majority of cases result in shorter periods of disability and excellent healing results.

COMMENT

The advent of war in this country has provoked a serious problem for the industrial and civilian population. The demands of the military forces for an adequate number of younger medical men has placed upon the shoulders of the older men, and those rejected for physical impairments, the responsibility of supplying the medical personnel for industry. This is not a simple consignment, and it will require that every practicing physician familiarize himself with the principles of treatment and the details of handling of traumatic problems. There are not enough physicians in this country to adequately meet the demands that will be put upon the medical profession. The early recognition of this fact will serve to stimulate preparation for the care of the civilian population; it will provide the means to supply our Army and Navy; it *must* furnish the needs of wartime industry. Unless it does all of this, we will fall short of a complete effort to win this war.

DISCUSSION

M. C. Topping, M.D. (Terre Haute): Dr. Forster mentioned the increased use of magnesium in wartime injuries as the source of industrial disease. I wonder what industrial disease is the result of magnesium?

Dr. Forster: Well, not exactly disease, but injuries, that is penetrating injuries. Foreign bodies composed of magnesium or coated with magnesium may penetrate the tissues and then form a very malignant type of ulcer. This is extremely slow in healing and the prompt excision of the imbedded material is the proper method of treatment.

Dr. Topping: No industrial disease?

Dr. Forster: No, not particularly disease.

Dr. J. W. Hilbert (South Bend): I should like to know what Dr. Forster's experience has been with magnesium as a source of dermatitis, and I should like also to reëmphasize what he has already said about the importance of industrial medicine

as we look upon it today. With the increasing number of people who are being drawn into industry, together with the fact that they are poorer risks, older people, debilitated people, and the fact that there are fewer physicians to do the work, it is all-important that the industrial physician make part of his work a safety regimé to prevent the things that normally occur in industry, so that they won't have to be treated. It occurs to me that it is more important to bring about preventive measures, than it is to take care of the secondary conditions that arise as a consequence of certain processes in industry.

DR. FORSTER: Frankly, I haven't had any experience with dermatitis caused from magnesium, not using the product in our plant or any of the plants with which I am connected, so I haven't run into that particular phase of it. However, the principal things so far as I know, are the burns which result from this element.

137 RIMBACH ST.,
HAMMOND, INDIANA.

EMERGENCY MEDICAL SERVICE OF CIVILIAN DEFENSE *

WILLIAM S. KELLER, M.D.†
CLEVELAND, OHIO

I am especially glad, friends, to be here tonight to pay tribute to your state, particularly the Emergency Medical Service. Those of you who are chiefs of the emergency service know how very exhaustive and extensive and numerous the publications are and how conflicting they were in the early part of the Office of Civilian Defense program; but Doctor Ferree has weathered the storm splendidly in Indiana. He has not given us the complaints and dissatisfaction we have found in many other parts of this region, but has carried out the program, with Mr. Jackson and his assistants throughout the state. I cannot but pay tribute to the very fine cooperation we have received from them and, incidentally, I think that some of that is due to the cooperation we have received throughout the state of Indiana. You made a valuable contribution in the early history of the Office of Civilian Defense program, which has counted for much in the manner in which things have been done.

I hope that the slide film which has been shown (Emergency Medical Service) will be used in your various localities. Mr. Robinson is in the field and the film will be available if you will contact him or Dr. Ferree's office. In the event this film should be in use, we have extra copies at the regional office at 1530 Standard Building, Cleveland. I hope that you see in this film a certain amount of flexibility. When it was made it was principally for use in the larger cities, such as Philadelphia, New York, Washington, et cetera, but it was the ideal for which we were striving in the O. C. D. medical program. Part of it is not applicable to some towns in Indiana. You will have to improvise and adapt this to fit your own needs in the various sections of your state.

One thing this film shows is that first-aid posts are flexible as to situation, and movable. Second, casualty stations should be located in buildings where there are facilities for heat and light, toilets, running water, adequate and easily accessible entrances and exits, and, as far as possible, fireproof buildings. In communities where it does not seem feasible to have both first-aid posts and casualty stations they may be combined. On the other hand, the program can be enlarged by the number of ambulances you enlist. In places where there is a hospital at the county seat the ambulance service can be augmented and the list made public at the local O. C. D. headquarters. It is important that you check up on the number of ambulances and have their location in mind, so that when the emergency comes the ambulances may be readily located.

In reference to the Emergency Medical Field Units, this film shows that we are not using surgeons; we are using pediatricians, neurologists, and men in internal medicine. We are not using surgical nurses or floor nurses. We do not want hospital staffs to be disturbed, especially surgical staffs. These units should consist of two doctors, two nurses, and two orderlies. Orderlies are hard to find, especially since we have had civilian draft and defense activities. There are few orderlies in hospitals. These emergency medical field units are mobilized from resident hospital staffs, that is, if any are available. Hospitals that formerly had fifteen to twenty house men now have three to five; where they formerly had fifteen to eighteen interns, they are lucky if they now have five or six. These emergency medical field units are being supplied from visiting staffs, nurses selected from the groups of visiting nurses, public health nurses, and school nurses, and orderlies are being chosen from the group of men who know something about first aid. Someone has suggested that we might use volunteer nurses' aides, but they are a poor substitute because orderlies are pri-

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* Presented before the Conference on Public Health, held at French Lick on September 29, 1942.

† Senior Surgeon Reserve, United States Public Health Service, Regional Medical Officer—Fifth Region. Dr. Keller has the equivalent rank of Lieutenant Colonel.

marily intended to do heavy lifting, and women would not be capable of that. In some places, and indeed in your own state, we very often find it possible to work in senior boy scouts. The older boys who have their merit badges in first aid have been given a new course in first aid, and in New Albany, Indiana, the chief of the Emergency Medical Service enlisted twelve senior boy scouts and took them into a hospital where they were given an eight weeks' course, every morning from nine to eleven-thirty. The public high schools give credit for the work done by these senior boy scouts. That is true in one or two other places in the state where the boys are given instruction and are called "Medical Corps Men." It was found that the Navy is using the term "Hospital Corps Men" and, of course, we do not want to use any term in conflict with the Navy. These boys are thoroughly delighted to become identified with the medical field units, and, incidentally, two of the twelve boys at New Albany have decided to take up the study of medicine because of the interest aroused during their hospital contacts in the eight weeks of their instruction. So you can see that you will have to improvise and develop the program in your own community—cut your garment according to your cloth—and do what seems to be best with what you have in your particular community. Read your O. C. D. bulletins carefully. We are not insisting that everything be done according to the letter—that cannot be done—but do the best you can to follow in principle.

With reference to the hospitals we are finding a dearth of beds, emergency beds. In states where they have hospital insurance it is due to the fact that the hospital care plan gives them this service. In some states that has worked a hardship on the hospitals, they have been grossly imposed upon. I know of one case where a woman went to the doctor and said she wanted to be sent to the hospital for two weeks. It developed that she was not ill but was going to have the inside of her house painted, and the odor of turpentine was offensive. Anyway, she insisted that she was entitled to two weeks' hospital care. Another case was that of a young lady in a radio sketch who went to the hospital for observation and rest, left the hospital each day to put on her radio sketch for one-half hour and then returned to the hospital —because she was entitled to two weeks' hospital care. And in addition to this, hospitals are fuller today because we are sending more patients in for clinical diagnosis; and obstetrical cases are going to the hospital more than ever before. Even in states where they do not have the hospital care plan, by virtue of the fact that people are living in efficiency apartments or in smaller houses, by virtue of public health education, by virtue of the fact that more people are sent in for clinical diagnosis, the hospitals are crowded, so that we are now confronted with that problem.

We are not only disturbed about the number of emergency beds, but there is the problem of the number of operating rooms available in hospitals. As this film disclosed, these injuries are serious; fifty per cent are killed outright, and the others are so badly mangled that it takes, on an average, an hour to clean up and care for each case. It is necessary for us to go over the hospitals again, after making a survey of the number of beds, to find out the operating room capacity—is the operating room large enough for two tables? how many nose and throat rooms? how many rooms for treatment?—so that we may know, through the central control of the emergency medical service not to send too many cases to a hospital that does not have the surgical facilities to take care of them.

I am glad to tell you that the government is today preparing to pay $3.75 a day for hospital care for injuries to any individual as a result of sabotage or enemy action. That is the minimum rate, and can be added to in event serums, x-ray, or blood plasma are needed, but the minimum is $3.75 a day.

There are some other factors in the hospital situation that are very serious. Today hospitals have an administrative problem, indeed many of them, that they have never had before. With our large defense industry plants in operation the hospitals are encumbered with the handicap that it is almost impossible to get people to work in hospitals. Hospitals never have paid very large salaries, and the people who formerly worked in the hospital kitchens and dining rooms are now going to defense plants. Why should a girl work for fourteen dollars a week when she can start in at thirty-five and in a few weeks be up to forty-five or fifty in a defense plant? Why should women scrub floors when there are places for women in defense plants where they do not have to do that kind of work? In the southern part of this state a gray-haired woman, superintendent of a hospital of one hundred thirty beds, told me, "I cannot get people to work in the hospital—my floors have been neglected for a long time, and do you know what I did? I waited until after midnight last night, when everybody was in bed and no one would hear or see me, and then I came down here and scrubbed my own floors." She was the superintendent of a hospital! That is what is going on, and in the southern part of Ohio it is so desperate that a resolution was issued by the hospital administrators of a certain city and sent to all persons employing industrial workers, asking them not to employ workers from hospitals. One hospital lost thirty-two people in two weeks. But I am quite sure that no resolution will keep people from taking a job at thirty-five dollars a week when they have been getting twelve to fourteen; it will take more than a resolution. I am telling you this so that you may understand that hospital administrators are meeting problems, and have been meeting them for a long time, not only nursing problems but problems of administration.

The government is now asking for hospital administrators, as well as engineers and people to run electric light plants and power plants. In asking for hospital administrators they want persons who have had administrative experience in hospitals of two hundred beds or more, needed for the new government hospitals throughout the country.

The nursing problem is really serious. It is acute in many states; it is critical in the coastal states. I think it is only fair to the nurses that I should preface my remarks by telling you why it is acute. I do not know whether you know it, but the hospitals have never paid nurses adequate salaries. There are a great many hospitals throughout the country that pay nurses sixty dollars a month and maintenance, or sixty-five dollars a month and maintenance. In the last few years the WPA has, through their institutional subsidiary workers and the NYA, put their nurses' aides in service, and they are being paid fifty dollars a month and maintenance. They work alongside our graduate nurses who spend three years working for nothing, who have paid tuition and spent three years to get their education, and then have to work alongside these new government, untrained women, for a differential of ten dollars a month. It doesn't add up. The nurses are resenting that, and that is the main reason why we do not get nurses to take hospital jobs. Oh, yes, they will work on eight-hour duty if you call them through the registry, but when it comes to a job in a hospital the pay is not commensurate. What they should have done when they started the "Hospital Care Plan" organization was to say they would cooperate if they had the benefit of sharing in some of the sums of money that accrued. This has been very profitable to hospitals; some have come out of the red, some have enlarged their hospitals, built solariums, and all that, but not one thought of increasing the pay of the graduate nurses. The nurses are resenting this, but they realize that if they are vocal about it today they will be charged with being unpatriotic. That is another difficulty in our hospitals today, as far as nursing is concerned. The problem is so difficult that Miss Schwartz of the Cincinnati General Hospital told me she could use seventy graduate nurses, and that the situation is so desperate she is calling in nurses who were dropped four or five years ago because they were too old, and is asking them to work part time. She went to the city manager and told him that for the duration of this war Civilian Service is out; that she could not wait long enough for these nurses to be certified—she needed nurses now. One hospital in Cincinnati has even threatened to close off part of the hospital because they cannot secure enough nurses. Now the military forces are asking for three thousand nurses a month; they want thirty thousand nurses by the end of this year. The nurses have been a little reluctant and slow in coming in. Ohio is one of the slowest states in the Union to respond in that respect. The nurses are conscious of it, the Red Cross is conscious of it, and they have both appointed a nurse from each district in an endeavor to get the nurses to come into the military service. I can tell you this: the nurses are now being paid rather handsomely in military service. There was a time a few months ago when they received only seventy dollars a month; now they are starting at ninety dollars a month and after three years they are advanced fifteen dollars, then to one hundred twenty-five dollars, then to one hundred thirty-five, and at the end of twelve years they are getting one hundred fifty dollars and full maintenance; not only that, but the nurses are also being given all of their equipment—suits and coats, overcoats, hats, uniforms, shoes, hose, et cetera—so the salary is clear money. We are hoping, now that we have increased the pay for service in the Army, that military service will also become more attractive to the nurses.

The reason I am going into this is to show you that we need volunteer nurses' aides. A year ago the American Red Cross promised to have one hundred thousand volunteer nurses trained the first year. The year is up and they scarcely have twenty thousand trained. The reason has been obvious. It is not wholly the fault of the Red Cross. It is partly due to the Office of Civilian Defense, partly to the medical profession, and partly to the nursing profession. The nurses have been very much afraid that we were going to break down standards and educate a group of practical nurses who would later commercialize on their Red Cross certificates after the emergency is over; but that is not true. The Red Cross has been highly selective in the matter of nurses' aides, and those who have been chosen have been marvelous persons and have done a fine job. But the trouble has been that the women in the various communities who one would think would be interested have not been the persons who were interested. We have been asked to have night classes. Girls who work all day want to take training at night, but you know a girl who works all day could serve only on Saturday afternoons, Sundays and holidays, and that is not what the hospital needs. After seven o'clock the lights in a hospital are turned down and the patients are made ready for bed. The people we need in the hospitals are women who can work in the daytime; women from the over-privileged groups who represent the League of Women Voters; women who have time for literary clubs, musical clubs, foreign policy associations; and women who have independent means, because a women who has independent means or is well supported by her husband can afford to work for nothing. But these groups of women have not been making application. We must be responsible for helping that to come about.

Now I wish to say a few words about blood plasma. You gentlemen know that if we had had the proper amount of blood plasma at Pearl Har-

bor and Corregidor many more lives might have been saved. We did not have the blood plasma nor the technicians to give it. Blood plasma is now being placed throughout this region. We realize that the hospital which does not have a full-time clinical pathologist or a well-trained technician has no business developing a blood plasma bank, because unless it is done just right it is much better not to be done at all. But we are making provision for those hospitals. We are sectionalizing this region, such as Louisville and New Albany; South Bend, Elkhart, LaPorte, and Mishawaka; Indianapolis and surrounding communities; Cleveland and Akron; Cincinnati; Charleston, West Virginia, et cetera, so that blood plasma will be adequately supplied by a central distributing hospital, some receiving assistance from the United States Public Health Service in the form of either frozen plasma or financial assistance, so that these larger centers will have, in excess of what they need for themselves, a supply for use in surrounding hospitals in smaller towns.

I do not need to tell you of the value of blood plasma. That has already been proved in this war. I firmly believe that in the future in hospitals approved by the American College of Surgeons, a blood plasma bank will be just as essential as an x-ray department for use in cases of shock, burns, and for other hospital cases. The profession must, therefore, be educated as to the use of blood plasma and the importance of seeing that enough is available for use. There will be an additional blood plasma reserve in this region, so it will be available. The Red Cross has agreed to furnish three million units of blood plasma by July, 1943. That is all being processed by pharmaceutical firms throughout the country, in the form of dried plasma, and that is being sent to the military armed forces. The Red Cross chapters throughout the country that are not visited by these mobile teams are assisting the Office of Civilian Defense in securing for the respective communities enough donors so that every hospital in the community may be supplied, developed by the sedimentation method. Blood plasma held in reserve is quite essential. You must keep in mind, friends, that in the present emergency our workers are dealing with high explosives, with high octane gasoline, and in your own state there is enough of that going on to make you really apprehensive as to the amount of blood plasma that should be in reserve for emergency purposes.

Next, I would like to tell you something about emergency base hospitals. In view of the fact that we have very few hospital emergency beds, we are again sectionalizing this Fifth Region area, trying to place emergency base hospitals in various communities. These hospitals will take convalescent patients in the event of a disaster. They are being located in fireproof buildings with good entrances and exits and with adequate toilet facilities. They are being equipped for emergency purposes as evacuation centers where convalescent patients may be taken from regular surgical hospitals, and thus relieve the strain on surgical hospitals. The location of all of these base hospitals has not yet been determined, but they are now in process of being selected.

I could not close this discussion without saying something about the matter of our augmented program for physicians and surgeons in rationing medical care. Again the state of Indiana is in the forefront. Your own Tom Hendricks, the energetic and efficient secretary of the Indiana State Medical Association, has combed the state and has done a splendid job in contributing your rightful number of doctors to the armed forces. I am told that there are certain localities that are suffering from the lack of medical care. That is no fault of Tom, no fault of Colonel Seeley, nor of General Hillman. So far as the work of the Procurement and Assignment Committee goes, they may leave what is a sufficient number of doctors for a given community, but there are a number of doctors today who are saying, "They'll never call me, so I'll enlist." In several localities I know of doctors who enlisted after the Procurement and Assignment Committee thought they had made complete coverage for the locality, and that has left some communities high and dry. But whether it be doctors or nurses, the government, it seems to me, will see that there is a proper distribution, even if it has to resort to the Manpower Commission which Mr. McNutt has seen fit to appoint. But in the end no community will suffer for lack of medical care. We have had a bad time about this matter of placement, anyway. Before this emergency arose, in New York State there was one doctor to 375 people; and in Alabama there was one doctor to every 1,700. In some of the southern states the ratio was even larger than that. When it comes to the proper distribution of doctors, the government will have something to say about that. Six and one-half doctors are needed for every one thousand military men. The *New York Times* of day before yesterday says: "While the uncertainties of war preclude any authoritative forecast of the strength of our armed forces, General Hersey has indicated that more than ten million Americans will be under arms by the end of 1943." I do not know how many men we have under arms at present; if I knew the number, I could not tell you, but I do not know. But if we are going to have ten million men under arms by the end of 1943, that, I believe, will be almost twice as many as we have today, and if more doctors will be claimed at the rate our Army has already claimed them, the ratio for our civilian use will not be one to seven hundred and fifty, as it was before the emergency, and is now one to seventeen hundred, but it will be one to twenty-five hundred for civilian life. We will have to rely on the doctors fifty years of age, and maybe fifty-five, because our armed forces must be supplied with doctors and nurses.

Now, the first obligation of the doctor who stays at home is to the defense activities. We must keep up the war production. If we do not, we are sabotaging the men who have gone into military service. In the rise of industrial military mobilization throughout this country we have already far outstripped our manpower for facilities for safe water, safe milk, and safe sewage. In the war industries today able-bodied, experienced workers are being replaced by older men, by youth, and by women. In one defense industry in Cincinnati we are going to employ twenty-five thousand women, and women do not stand industrial diseases as well as men. They are less experienced in handling materials and tools, and less able to stand the strain of the assembly line. Also, hazardous materials are being used, because the supply of safer materials has been curtailed in many instances. The twenty-four-hour-a-day use of machinery increases the hazard; the pressure of speed and continuous production tends to relax vigilance and to interfere with the proper servicing of machines. Priorities lead to substitutes as makeshifts in safety equipment.

That we must forego the luxuries and must educate the public to do so goes without saying. The people must be trained to do as much consultation with the doctor over the telephone as they can, and they must realize that they cannot get the doctor the minute they call him. They must not visit with him.

In speaking about emergency service for Civilian Defense, aside from the regular O. C. D. organization, I am assuming that everybody has a right and a duty to protect his home; but I am talking about defense areas that make fine targets. General Hershey told a story of a certain place in England, a "hot spot" that was bombed. Later, when the rescue squad were trying to clear up the wreckage, they pulled out an old lady and placed her on her feet, then asked: "Mother, is your husband in there?" "No," she said, "the coward, he joined the army!" Now, General Hershey did not mean that anybody who joined the army was a coward, but he did mean that there are target areas where people working in defense industries will be "hot spots," and time bombs may be set within these target areas or fall in unsuspected adjacent areas.

There is another thing the older doctors will have to do, those who stay at home and are already doing double duty: from a moral and ethical standpoint they will have to conserve the interests of the doctors who have gone into military life. Let us not have a recurrence of what happened after the last war; doctors gave up their all—their lucrative practice, their life insurance, sent their wives and babies back home, and then came back to find they had nothing. We cannot let that happen again. It is an unwritten law, but it is a law of sheer decency, that the doctors who remain at home should reserve a part of the proceeds of their business for the doctors who have gone into military service. And then, too, we always have the indigent poor and the public charges with us. The doctors have been reluctant, and in some cases not cooperative with the government agencies in taking care of these people. You know that, and so do I. The government never paid adequately for this work. They gave the doctor a bonus of anywhere from ten dollars for an abdominal operation, down to two or three dollars. It was on that basis that work for the indigent poor and public charges was carried on. But in times like this the government is making a close survey of these things, and it behooves us, as medical men, to be alert because there are many instances where people are today waiting to ease in socialized medicine.

The hospital administrators this last year have been worried about the government's attitude in the matter of hospital insurance and care. They say it is all right as far as it goes, but in the judgment of some legislators it does not go far enough, because there is a substandard group that cannot even afford to pay the small price charged for hospital care. The plan is all right, but it must take in the whole population, such as the farmer, not just the people who can afford to pay for it. A bill of that kind has been pending, and I wonder if that is not another entering wedge. Let us not be fooled about that—the public charges and the indigent poor must be cared for.

And lastly, I want to tell you this: in the matter of rationing medical care, we must not flatter ourselves that when the emergency is over the doctors and nurses immediately will come back home; I do not believe that for a moment. The difficulty we are in is so extensive that when this emergency is over, having more doctors and better doctors than any other country in the world, and having more nurses and better nurses than any other country in the world, with an enlarged Navy and an enlarged Army, we will have to police this world, and wherever that is done the doctors and nurses will have to go to make it possible for our Army and government personnel to live.

Just last week while on the train between Lafayette and Indianapolis, I ran across a man who was a Lieutenant Colonel, but who had been a practicing dermatologist in Kansas City for many years; he was fifty-eight years old. I asked him where he came from and he said, "I am coming from a school down in _____, a school at the University of _____, for training in military government." I said, "Military government school—I never heard of it." He said, "My dear friend, I have been down there for the past month—we have _____ men, mostly college professors, some with as many as three and four degrees, including doctors, sanitary engineers, and we are preparing this group of men, along with other groups, to take over the reclaimed countries." I asked about the medical aspect of that and he replied, "Doctor, I am a German; I was born in Switzerland, and I know I am being trained as health commissioner for some German-speaking country." "What will

you do? Check over all the health work of that country?" Said he, "How many of those Germans do you think we could trust when our men march in there to take charge? What per cent of doctors could we trust? What per cent of their firms could we trust to manufacture our biologicals? We must manufacture our own biologicals, and we must have a public health set-up that is second to none. When people from Germany come back home from Poland, Russia, Czechoslovakia and Belgium, they will come with all types of disease—syphilis, tuberculosis, typhus, typhoid and what not, and unless we have control over the public health, those countries will not be fit for our soldiers to be there. You cannot starve nations, as they have been starved for three or four years until their resistance is lowered as the result of filth and malnutrition, and have anything like a decent, civilized place where decent people and our soldiers can live."

Those college professors, physicians and sanitary engineers are being trained in military government, trained to go in and clean up these places. Fancy the responsibility of taking care of a generation of children with rickets, another generation of people with queer mental maladjustment as a result of having lived through this war in dugouts, blackouts and holes in the ground, to say nothing of the people in France, a privileged country, who today are suffering all kinds of delayed convalescence from operations and hemorrhages, and old people with bone disorders as a result of improper diet, et cetera. After talking with this man with reference to the development of these leaders, training them to take over reclaimed countries, I could not help but feel, friends, that we are really living in a great country and that the program is so complex that it does not behoove any of us to criticize what our great leaders are or are not doing, or the way in which they are doing it. It is the greatest emergency, gentlemen, in the history of mankind, too large and too complex for any of us to comprehend. We must keep in mind also that there is no victory without sacrifice. What we need is concerted action, a united front, that civilization may be spared for the betterment and for the hope of mankind. I think also that we need constantly to remind ourselves of our blessings. When you go to your rooms tonight and turn on the light, think of the millions of people throughout this world who dare not turn on a light. When you go home from here, think of the Russians who have no homes to go to and who have been fighting for our democracy. And when you go to the icebox for a snack before you go to bed, think of the children in Poland who are living out of garbage cans, if they can find any, so as to reduce that frightful mortality from starvation, something like two thousand down to seven hundred a day—dying from sheer starvation! Those people of all nations, with all the tragedies they are suffering, are fighting for our democracy. And I need not remind you that they, too, are Children of God.

ABSTRACTS

NO WIDELY ACCEPTED EXPLANATION YET FOR SEASICKNESS

A review by W. J. McNally, M.D., and E. A. Stuart, M.D., Montreal, Canada, in the current issue of *War Medicine*, of experimental work on the labyrinth or inner ear in relation to seasickness and other forms of motion sickness fails to bring to light any widely accepted explanation for the cause of the condition or immunity to it. "The labyrinth has been shown by experiment to play an important, probably the most important, part in the causation of motion sickness," the two physicians explain.

SAY ILLNESS OF RURAL MATTRESS MAKERS IS CAUSED BY "COTTON BACTERIUM"

The acute illness among rural mattress makers which broke out in 1941 is caused by the inhalation of a minute organism or its toxins or poisons contained in or on dust from stained cotton, Paul A. Neal, M.D.; Roy Schneiter, M.S., and Barbara H. Caminita, B.S., of the Division of Industrial Hygiene, National Institute of Health, Bethesda, Md., report in the August 1 issue of *The Journal of the American Medical Association*. They tentatively give the micro-organism the name of "cotton bacterium."

"Numerous reports of sudden outbreaks of acute illness occurring among workers on rural mattress making projects were received by the U. S. Public Health Service throughout the period from March to December 1941," the three investigators explain. "Outbreaks of a similar illness were also reported in one cotton mill and in several cottonseed processing plants. Illness invariably followed the use of a very low grade, dusty, stained cotton of the 1940 crop. . . ."

The investigators say that although these mattress-making projects had been operating since February 1940 no outbreaks of illness were reported prior to March 1941. There were 2,832,885 families engaged on rural mattress making projects in forty-six states during 1941. Twenty-five states reported scattered outbreaks of illness in the course of these projects. The actual number of cases occurring during 1941 cannot be determined, but it is known that there were many more than 700 cases in one state alone. Outbreaks of illness did not occur among workers when recommendations that gauze masks be worn were adopted.

By exhaustive investigations involving various laboratory tests, animal investigations and tests on human beings, the three investigators found that the "cotton bacterium" or its by-products was responsible for the illness. The cotton bacterium was recovered by them from all grades of yellow stained cotton and from one grade of tinged cotton but examinations of other samples did not reveal the cotton bacterium in the various grades of white cotton. They say that the clinical syndrome, or group of symptoms, of this illness is similar to that of an acute intoxication.

"This illness," they say, "resembles mill fever, Monday fever and gin fever in cotton mill workers. It is possible that the cotton bacterium or its toxic products may be responsible for these diseases. It is also possible that repeated exposure over a period of years to this organism or its products contained in cotton dust may be a contributing factor in byssinosis."

MEDICINE AND PHARMACY—SHOULDER TO SHOULDER *

STEPHEN BADANISH**
GARY

I am thankful, indeed, for the privilege accorded me of addressing your convention. It is a rare privilege and one that I have anticipated with immeasurable pleasure. It affords the pharmacists of Indiana an opportunity of reciprocating, in a way, the compliment of Doctor Austin in addressing the convention of the Indiana Pharmaceutical Association in Indianapolis last June.

Although I am listed on your program as president of the Indiana Pharmaceutical Association, I prefer to be thought of as a representative of the one thousand four hundred odd drug stores in the state of Indiana, or better still as a representative of the fifty-four thousand community drug stores in the United States. Each of these community drug stores is operated by its owner, who is a registered pharmacist—a partner of the doctor in safeguarding public health.

Ever since medicine and pharmacy had their divorce during the Middle Ages, there has been need for closer collaboration between the two. I would not intimate that they have quarreled, although there has been occasional bickering. On the whole, they have remained on friendly terms with each other; but they have failed to work together as they should. Each has been disposed to go his own way, to do his own work, and to leave the other alone.

This would perhaps be of small concern but for the fact that there is a third party to be considered—the general public. The public is entitled to the closest team-work between the physician and pharmacist; for unless there is such team-work the people cannot have that adequate medical care to which they are entitled.

Modern science has so extended the field of what the physician must know about disease, its diagnosis, its treatment and its control, that no doctor can possibly know everything he should know within the scope of his own work. Likewise, science has discovered so much concerning medication, its sources, its extraction and purification, the means of determining its potency and of maintaining exact standards, that pharmaceutical practice now includes much more than the technique of filling prescriptions.

Diagnosis and treatment have become such complicated problems that no conscientious pharmacist should think of counter-prescribing, even though the law allowed it; and, likewise, new pharmaceutical discoveries have come so thick and fast that the busy doctor, more than ever, needs the assistance of his natural partner, the practicing pharmacist.

A few years ago an outstanding group of fifty men and women, representing the fields of private practice, public health, medical institutions and special interests, the social sciences, and the general public made a comprehensive study, covering a period of five years, of the scope and character of the medical care then being received by the American people. The committee was given adequate financial support by several private foundations, and it received the cooperation of many public and private agencies in its work. The study was carried on under the direction of a capable research staff and the final report of the committee, under the title "Medical Care for the American People," has been accepted in general as an accurate and dependable survey of this field, as providing a basis for determining what groups furnish medical care in our country and as showing what contributions each group was rendering at that time. The report clearly recognizes that medical care is rendered by physicians, dentists, pharmacists, nurses and other associated personnel, the latter including manufacturing and wholesaling groups.

From the standpoint of cost and personnel, pharmacy ranked third in importance among the health professions. The annual expenditure for drugs and medicines was about $715,000,000, representing 18.2 per cent of every dollar spent for health, and there were about 132,000 registered pharmacists and assistant pharmacists engaged in practice. It was pointed out in the report that the sales of drugs and medicines compared in magnitude with the total earnings of physicians or hospitals; that about 90 per cent of the drugs and medicines were furnished by pharmacies, the remainder being furnished by physicians, hospitals and other institutions; and that "Less than one-third of the drugs and medicines consumed annually are used on the express order of physicians even when allowance is made for drugs utilized in physicians' offices and in hospitals."

The significance of these comments is evident. It should be noted in particular that with respect to about two-thirds of the drugs and medicines consumed, the pharmacist was the only intermediary between the producer and the consumer. In this connection, pharmacy has rendered a valuable professional service in spite of the criticism aimed at it and could have rendered a much more effective service if it had been given greater control.

In connection with the recommendation by the committee, "That pharmaceutical education place more stress on the pharmacists' responsibilities and

* Presented before the Second General Meeting of the Indiana State Medical Association at French Lick, October 1, 1942.

** President of the Indiana Pharmaceutical Association.

opportunities for public service," the following important comment was made:

"Drugs and medicines and medical supplies are essential to an adequate medical service, both therapeutic and preventive. Most of them are dangerous if unwisely employed. The preparation, standardization and distribution of drugs, medicines and medical supplies should be limited, as far as possible, to pharmacists who are prepared by education and training to render this responsible service and to protect the public against abuse. Physicians and pharmacists should unite to provide the public, as economically as possible, with efficient remedies and to protect consumers from exploitation."

In recent years a number of public health officials, prominent laymen, and various publications, in increasing numbers, have recognized the part which pharmacists play in public health. The following comments are taken from three recent addresses or articles:

"1. In the fight against major disease, the physician has one disadvantage. He sees his patients too late. . . . The man in the street thinks of the doctor too often as someone upon whom to fall back only when all other measures have failed. The pharmacist, on the other hand, is the 'border patrol.' He sees the enemy long before it reaches *The Maginot Line of Medicine.* Upon the discretion of the druggist, upon his good judgment, and upon his professional integrity rest the decisions which may mean health or illness, even life or death, in the lives of many of our citizens.

"2. The active and moral support of pharmacists is virtually without equal in the growing and successful onslaught against syphilis and gonorrhea.

"3. The practicing pharmacist is entitled to status as a member of one of the oldest professions. His calling measures up to all of the requirements of a profession. He renders a service which is recognized as vital to the welfare of the community. He has an important part in the indispensable task of maintaining the public health and in prolonging life."

We are fortunate in Indiana in having an organization known as "The Indiana Inter-Professional Health Council," composed of representatives of the State Medical Association; The State Dental Association; The Indiana Pharmaceutical Association; The Indiana Hospital Association; The State Nurses Association; The State Board of Health, and The Deans of the Related Professional Schools. The council has proved valuable in providing a clearinghouse for the interchange of information and knowledge between the member-associations in an effort to provide effective coördination in securing and maintaining high professional standards of public health service. The council has been active in promoting public health legislation; disseminating public health information; and has formed the nucleus for complete coördination of professional health groups in the emergency medical program of the Indiana Civilian Defense Council. We believe that the Indiana Inter-Professional Health Council has provided and will continue to provide a valuable public health service to the citizens of Indiana, and the Indiana Pharmaceutical Association pledges its full support to the council.

Just now, under the impact of a global war, the knowledge of the pharmacist is needed to supplement that of the physician, for new and special reasons, for the time is past when a physician can sit down and write a prescription without up-to-the-minute information.

Assuming that he has had time to keep abreast of pharmaceutical, as well as strictly medical developments—and that is a big order—and knows all about the new drugs and preparations which research pharmacists have found and developed, the physician can no longer prescribe anything he would like to prescribe, for the drug may no longer be available.

The sources of supply of many important drugs, drugs frequently prescribed, have been cut off by the war. The countries which produce them may be in the hands of the enemy, or the need for using all shipping for war supplies may have made it impossible to procure them. Also materials used in medicine, even though produced within our own country, may not be available because they are needed for the manufacture of munitions. The government has impounded some drugs for use by the armed forces, such as quinine, which may now be used only for the treatment of malarial fever.

Prescribing is the doctor's business, but finding and supplying the things prescribed is the druggist's business—and it is of no use to prescribe anything the druggist cannot obtain. Hence, there needs to be closer collaboration than ever between doctor and druggist.

So it becomes the proper function of the pharmacist to stress the use of drugs known to have therapeutic merit, which are plentiful or at least obtainable, and to advise against the use of others which are scarce; likewise, to discourage the use of preparations of doubtful or unproved efficacy, which only serve to deplete the supply of the materials from which they are made; and to recommend the prescribing of medicines in the form of tablets or powders, instead of in liquid form, when the latter calls for such scarce materials as glycerin, alcohol or sugar.

The scarcity of some essential drugs and chemicals places on our two professions the joint responsibility of finding substitutes—products which have the same, or nearly the same, values as those which are no longer available. That is our duty to the public we serve.

I do not like to use the word "substitutes"; it has a bad connotation. It is needless to say that I do not condone that form of substitution which takes place when a pharmacist takes liberties with

a doctor's prescription—that kind of substitution is condemned by my profession as much as it is by yours. A prescription should be filled as written unless a change is directed or authorized, in writing, by the physician who wrote it.

The kind of substitution which I am thinking of, and the only kind of which either you or I would approve, is the substitution mutually agreed upon by the doctor and the pharmacist, which may have been made necessary by conditions during the war emergency. The need for that kind of replacement already has been recognized in the United States Pharmacopoeia and the National Formulary, which have accepted certain products in lieu of those formerly indicated.

I have already referred to one kind of substitution or replacement, which can be made without hurting anything but the patient's sense of taste—the dispensing of medicines in the form of tablets and capsules instead of elixirs, tinctures and fluid extracts, and the use of saccharine instead of sugar for sweetening. If this were done generally, it would save no end of sugar, alcohol and glycerin for other uses. To be more specific, there seems to be no reason why tablets of phenobarbital and capsules of terpin hydrate and codeine would not serve just as well as the elixirs generally prescribed in the past.

Further, coal tar analgesics would serve in place of codeine for relief of muscular aches and pains, headaches and colds; and bromides and steam inhalations containing menthol for coughs. If we cut down on the use of morphine derivatives, we leave just that much more morphine for the relief of pain on the battlefield, and thereby make a real contribution to the nation's war effort.

Belladonna and its alkaloids are on the scarce list. Why should we not then use such synthetics as novatropine, eumydrine, syntropan, trasentin or pavatrine as antispasmodics? The synthetic atabrin is almost as good as quinine for purposes for which the latter has been used. For emulsifying purposes, gelatin, methyl cellulose, pectin and Irish moss, as well as many synthetic products, will serve almost as well as agar, acacia, tragacanth and gum karya. For purposes of suspension bentonite may be used quite successfully. Oils of spearmint, lemon and orange, and the synthetic methyl salicylate will easily take the place of menthol. Instead of natural camphor we can employ synthetic camphor made from oil of turpentine, of which there is an abundance. As counter-irritants methyl salicylate or the more abundant volatile oil of mustard, oil of turpentine, and many of the pine oils are available.

The sulfa drugs are displacing mercury and mercury compounds in medication, and in many instances where the use of mercury is still indicated, such as blue ointment and ointment of ammoniated mercury, it has been found that the amount of mercury may be reduced without impairing effectiveness. Combinations of starch, kaolin, talc, calcium carbonate and bentonite will serve as covering and protective agents, now when zinc oxide is scarce. In the field of herbal laxatives replacements for cascara sagrada are the various mineral or saline salts and the synthetic phenolphthalein, and one can always fall back on mineral oil.

It has not been my purpose to catalog all the alternatives to which the war is driving us, but only to indicate that new conditions make new methods imperative and that there needs to be the closest coöperation henceforth between the doctor who prescribes and the pharmacist who compounds and dispenses. Out of such coöperation each profession will gain, for each has much to learn. The public also will gain, for it will be assured of adequate medication even during a period of scarcities.

Out of such a relationship will come a new conception as to the proper function of the retail druggist. Economic conditions have forced him to become a merchant as well as a professional man. A fault which I willingly admit is that his mercantile interest in too many instances has been predominant, and that he has often gone far afield. Physicians have deplored this, and sometimes it has caused them to have less confidence in the pharmacist than they wished to have.

I am not blaming physicians for this attitude, but I believe I shall be pardoned for suggesting that the medical profession may not be entirely without blame for the situation which prompted the attitude. If the doctors themselves would discontinue dispensing the ready-made products of pharmaceutical manufacturers, which may or may not be exactly what the individual patient should have; if they would write prescriptions calling for official remedies, and thereby actually save their patients money; if they would consult the pharmacist on problems specifically within the latter's province and in turn encourage the pharmacist to consult them—I say if these things were done, the prescription department would soon seem more important to the retail pharmacist; he would strive harder to keep abreast of the phenomenal advances of knowledge in his own profession; he would be awakened to a keener sense of his own place in the medical-pharmaceutical partnership; and he would be less disposed to engage in counter-prescribing and other practices, far too prevalent, to which the physician has a full right to object—aye, even to resent with righteous indignation.

Some of the deprivations of the war will, in my opinion, help the retail druggist more than they will hurt him. The scarcity of trinkets and notions—of pots and pans and gadgets—will force him to fall back on his prescription business and to cultivate it. Thereby he will make his store what it should be—a *drug* store. Perhaps then he will not only regain but justify your confidence.

The trend toward commercialism, initiated and followed chiefly by multiple-store systems owned by non-pharmacists and promoted for gain, has not

been universal. There are still in this country tens of thousands of drug stores which are drug stores. One valuable by-product of the war, it seems to me, will be that these whom I would denominate the *ethical* branch of the business, who still constitute the majority numerically, and even in volume, will gain an unquestioned ascendancy. When the operators of pseudo-drug stores no longer are able to get the racket-store merchandise in which they deal, the ethical druggist will come into his own.

The rank and file of druggists must come to realize that they are truly professional men; and the rank and file of pharmacists must come to realize that even in their professional capacity they are not mere fillers of prescriptions. They need to be familiar with, and be able to give information upon, not only drugs and chemicals but all medical supplies. They should be the physician's first source of information.

The hospitals of the country have begun to recognize their need for the pharmacist. The American College of Surgeons is directing hospitals to have proper pharmaceutical service. It is even going further—it is recommending that pharmacists be called into the various conferences; that they be represented on the staff; and that they should at least have the same status as the pathologist and the head of the x-ray department. This means that the pharmacist's function in the treatment of the sick is definitely recognized by the very elite of the medical profession. My assurance to you is that the pharmacists of the United States are trying to justify that recognition.

Recently our two national associations, The American Medical Association and The American Pharmaceutical Association, held a joint conference at Cleveland, Ohio. The joint conference was not called to discuss war problems alone. Rather, it had as its broad objective the promotion of a better general understanding between the two professions in order that they might work together with the greatest possible effectiveness. However, the strain which the present conflict is exerting on both professions was obvious in the remarks of virtually every speaker, and it was easy to see how the force of war is driving medicine and pharmacy closer together than they have been in the four thousand years of their existence.

The obvious conclusions of the April sixth meeting might be briefly summarized as follows:

1. The demands of the present emergency on medicine are particularly great. Not only are thousands of physicians being taken out of civil life to serve in the armed forces, but the part-time services of many thousands of doctors are needed by selective service boards to pass on the physical qualifications of selectees.

The withdrawal of physicians from private practice means that those who remain in civil life will have to spread their services and facilities to serve a greater number of people, and when you place the additional selective service duties on their shoulders, it is evident that they can well use the assistance of qualified individuals of the other health professions to ease their burdens wherever this is possible.

2. The education and training of the pharmacist has developed to the point where today he is qualified to render greater professional services to physicians and to the public than he is being called upon to perform. His present pharmaceutical duties do not require his full time, and the pharmacist has the capacity to take on additional responsibilities in public health work and in other phases of professional activity for which he is trained and thus relieve physicians. The services of the pharmacist would be more completely utilized, and the services of the physician would be more effectively employed, the net result being more efficient medical and pharmaceutical service.

In the face of the facts presented at the conference, there should be no question of the need for carrying on this interprofessional work and developing a program of specific recommendations for the guidance of physicians and pharmacists in making the fullest use of the services of each. This program should be carried down through every state medical and pharmaceutical association and put into effect by individual pharmacists and physicians in their respective communities.

The war is certain to have a profound effect upon the health professions, and no less on pharmacy than on others. The requirements of selective service make it necessary for each pharmacist and physician to justify his existence in the community and in the armed forces on the basis of the professional services he renders. The shortage of drugs and supplies is fast making it necessary for pharmaceutical products to justify their existence on the basis of therapeutic necessity. Research, born of necessity, is certain to flourish during this period and give to the world many new weapons with which to fight disease. Apparently the war will be a medium through which medicine and pharmacy will be brought closer together. It is fortunate that pharmacy has prepared itself educationally to step into the breach and take on additional responsibilities.

The Cleveland Conference was no mere perfunctory meeting which, once held, is soon forgotten. It was probably one of the most significant meetings ever held in the history of either organization, for it laid the foundation for the more effective utilization of the services and facilities of medicine and pharmacy. It did even more than that: it sounded a challenge to both professions. If the program bogs down, if the Cleveland Conference goes down in the history of the two professions as an empty effort, it will be only because medicine and pharmacy were not capable of accepting the challenge.

The problem of the proper coördination of the

services and facilities of pharmacists and physicians is now squarely before both professions. The steps which are taken to solve this problem are of the greatest importance, not alone to the professions concerned, but to the public—in this emergency and thereafter.

THE OCULAR MANIFESTATIONS OF MULTIPLE SCLEROSIS*

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In at least 40 per cent of the cases of multiple sclerosis visual disturbance takes place at some time during the course of the disease. In a good proportion of the cases the ocular manifestations are among the first evidences of its existence.

These manifestations are many and varied, but by general consent those most often seen may be ranked in order of frequency as (1) retrobulbar neuritis; (2) diplopia, due to changes in the extraocular muscles; (3) nystagmus; (4) abnormal pupillary reactions; (5) nerve head alterations, causing changes in the appearance of the fundus; (6) alterations in the visual fields, and—infrequently—(7) papillitis and papilledema.

Multiple or disseminated sclerosis is a degeneration of the nerve structures evidenced by an irregular scattering of patches of sclerosis throughout the nerve tissue, especially the myelin sheaths in the spinal cord and elsewhere. Because of the peculiar delicacy of such highly specialized nerve tissue as that of the optic nerves, anything which affects either the central or peripheral nervous system will immediately react upon those nerves. In the words of Foster Kennedy,[1] "Failure of visual acuity first takes place in those parts of the field (of vision) subserved by the most highly specialized groups of fibers in the trunk—the macular bundles—with the result that visual failure, in almost all cases of retrobulbar neuritis, takes the form of a central or paracentral scotoma."

(1) Retrobulbar Neuritis: Gordon, in 1909, found that of the five chief eye symptoms of multiple sclerosis, retrobulbar neuritis was most often seen. Uhthoff went so far as to declare that 95 per cent of all cases of this visual disturbance was caused by multiple sclerosis. Not only is it usually the *first*, but often for a long time the *only*, indication of the existence of multiple sclerosis. Adie[2] reported a remission of thirty-two years before other symptoms were in evidence, while Fleischer (quoted by Kennedy) saw fourteen years pass before his patient showed any further signs of generalized sclerosis. Of the 225 cases of retrobulbar neuritis reported by Benedict, in 1933, multiple sclerosis was postulated as the etiologic factor in 155; of the later series (December, 1937) of Benedict and Koch,[3] of 89 multiple sclerosis cases, retrobulbar neuritis or optic neuritis was the causal factor in forty-three instances. Benedict places early and frank multiple sclerosis first and second in his list of etiologic factors in optic and retrobulbar neuritis, before excessive use of alcohol and tobacco, long conceded to be the chief cause of this visual disability.

In the series of 118 cases cited by Adie,[2] forty-one patients gave a history of retrobulbar neuritis, twenty of them naming it as the first symptom, while all the others reported it as occurring early. This writer stressed especially the fact that these first attacks were always unilateral. "The occurrence of simultaneous or early consecutive attacks of retrobulbar neuritis in both eyes should," in his opinion, "suggest some other form of inflammation of the optic nerves." On the other hand, Marshall and Laird,[4] in their review of 100 unselected cases of multiple sclerosis, found retrobulbar neuritis in but four patients. They quote Brain as having stated that acute retrobulbar neuritis proved to be the first sign of multiple sclerosis in 11 per cent of the cases. Shield[5] places the percentage at about twenty-eight. These figures were compiled after the diagnosis of multiple sclerosis had been established. In but one case that I have been able to discover was the diagnosis made solely on the eye findings, being later confirmed by a lumbar puncture.

The case just mentioned was remarkable only because of the promptness with which the condition affecting the nervous system was detected after the onset of acute optic neuritis. The diagnosis was made by two French army surgeons, Emond and Duguet,[6] upon a corporal twenty-

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* Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at French Lick on September 30, 1942.

[1] Kennedy, R. F.: Acute Insular Sclerosis and Its Concomitant Visual Disturbances, *J. A. M. A.*, **lxiii**: 2001, (December 5) 1914.

[2] Adie, W. J.: Etiology and Symptomatology of Disseminated Sclerosis, *Brit. M. J.*, **ii**: 997, (December 3) 1932.

[3] Benedict, W. L., and Koch, K. L. P.: Optic Neuritis and Retrobulbar Neuritis; Etiology and Treatment, *J. Michigan Med. Soc.*, **xxxvi**: 946, (December) 1937.

[4] Marshall, D., and Laird, R. G.: Ocular Changes in Multiple Sclerosis, *Am. J. Ophth.*, **xix**: 1085, (December) 1936.

[5] Shield, J. A.: Disseminated Sclerosis, *Southern M. J.*, **xxv**: 1116, (November) 1932.

[6] Emond and J. Duguet: Nevrite optique premier symptome d'une sclerose en plaques. *Soc. de Med. mil. franc.*, **xxx**: 37, (February) 1936.

three years of age, who was previously in good health. Suspecting, despite the patient's age, that he was the victim of a beginning disseminated sclerosis, they at once did a lumbar puncture, "because, at the initial stage of the ocular accidents, the cerebro-spinal fluid is capable of furnishing a precious observation . . . permitting us to decide whether the optic neuritis originated in a sinus condition," or was due to a beginning generalized nervous affection. The authors point out that inasmuch as their patient recovered his sight completely at the end of six days, it might have been many years before the existence of the multiple sclerosis would have been detected had not the lumbar puncture been immediately employed.

The generally accepted statement that initial retrobulbar neuritis is invariably unilateral has been challenged by T. Rowland Hill.[7] He declared in an address before the Ophthalmological Society of the United Kingdom that he was sure "bilateral simultaneous involvement of both optic nerves, either as a retrobulbar neuritis, or as an actual optic neuritis, does . . . occur . . ., and in some of these cases recovery is very delayed and frequently does not take place at all, leaving a severe degree of optic atrophy."

Pathologically, that type of retrobulbar neuritis regularly observed in multiple sclerosis presents some characteristic features by which it might be identified, were it not that examination is seldom possible except after the generalized condition has been diagnosed by other means. Dawson[8] found that the optic chiasma is most often affected, especially at its anterior border. He noted a marked reaction of the connective tissue, as well as the glia, when the optic nerve was examined postmortem. In some instances he found that the entire course of the nerves of both sides within the brain were entirely without myelin. In others, sclerosis of the tissues about the ventricles surrounding the posterior horns had extended as far as the visual fibers of the nerves. It was, however, the macular fibers which were most severely damaged. Possibly these macular fibers are particularly susceptible to injury, as they represent the most highly evolved elements in the entire afferent system of the visual apparatus. The degenerative process is often so gradual that the patient may go for a long time before he realizes how greatly his vision has become dimmed.

It sometimes happens, however, in acute cases, that there will be temporary amblyopia, yet when the ophthalmoscope is brought into service—if the sclerotic process was initiated some distance behind the disc—the appearance may be practically normal. Atrophy develops slowly, so if the examination is made early the true severity of the condition often will not be recognized. The ophthalmoscopic appearance, therefore, depends largely upon how long the lesions have been in existence and in just what part of the eye they have arisen. For example, if the lesion be near the disc, most cases will show papillitis, but in milder cases only hyperemia of the papilla. There will never be much edema.

The final result of any such affection of the optic nerve fibers—irrespective of whether it develops slowly or is extremely acute—will be atrophy, the fibers most involved being those of the macular bundle.

(2) Diplopia: Among the earliest evidences of the presence of multiple sclerosis are transient attacks of "seeing double," often accompanied by dizziness or even nausea and vomiting. This diplopia is explainable as the result of a sudden loss of parallelism in the axes of the eyeballs, which, in turn, is due to rapid weakening of one or several of the eye muscles. This permits overaction of the muscles antagonistic to those affected. When this loss of parallelism of the eyeball axes is extreme, it will cause the patient to squint—*paralytic squint* it is termed— but this is a rare affection not often seen in the course of multiple sclerosis. It has been noted that the acuteness of the diplopia and the resultant vertigo are in inverse ratio to the degree of axial divergence and muscular weakness of the muscles of the eye. "This apparent paradox becomes clear," says Kennedy,[1] "when we remember the varying degree of sensitiveness present in the different areas of the retina—the maculae alone being capable of receiving and transmitting acutely defined images, the paramacular areas being slightly less efficient, while images received by the retinal periphery are highly nebulous and vague."

(3) Nystagmus: While diplopia is seen in perhaps 30 per cent of multiple sclerosis cases, nystagmus is much more common. W. Russell Brain compiled some statistics regarding the frequency of true nystagmus and "nystagmoid jerks" and estimated that some form of this visual disturbance occurred in 70 per cent of multiple sclerosis cases. Six years later, Marshall and Laird[4] reached precisely the same figure in their series of 100 cases of multiple sclerosis. Williamson-Noble,[9] in 1933, came to the conclusion that the existence of nystagmus indicated multiple sclerosis more often than any other nervous disturbance, save brain tumor. Both conditions cause abnormal reactions in the vestibulo-oculomotor paths, resulting—when the cause is multiple sclerosis—in one of two types of nystagmus. In early cases he had seen the fine oscillatory type, while in the more advanced conditions a coarser variety would be in evidence.

[7] Hill, T. Rowland: Some Aspects of Neuromyelitis Optica, *Trans. Ophth. Soc. United Kingdom*, **lviii**: Pt. I, 143, 1936.

[8] Dawson, J. W.: The Histology of Disseminated Sclerosis, *Edinburgh M. J.*, **xvii**: 229, 311 and 377: (Oct., Nov. and Dec.), 1916.

[9] Williamson-Noble, F. A.: Eye Signs in Nervous Diseases, *Clinical Jour.*, **lxii**: 483, (December) 1933.

(4) Abnormal Pupillary Reaction: Pupillary anomalies are rare in multiple sclerosis. Myosis, inequality, and the Argyll Robertson[10] pupil are occasionally seen.

(5) Nerve Head Alterations: Atrophy is seen ophthalmoscopically as pallor of the disc. As the most affected macular fibers are found in the inferior third, the pallor will be greatest there, although in severe cases the entire disc may be pale. Temporal pallor—the evidence of atrophy—was stressed by Uhthoff as the characteristic finding in multiple sclerosis. Later studies have not, so far as I am aware, contradicted his conclusions reached more than a generation ago. It has been my own experience that atrophy is a very common finding when routine inspection of the fundus is carried out in cases where the sclerotic process is fairly well advanced. Cohen[11] found temporal pallor in the majority of such patients, and expressed the opinion that optic neuritis is far more frequent than the standard textbooks would lead us to believe. Brain's figures show that pallor has an incidence ranging all the way from 32 to almost 58 per cent. But the most recent information on this subject—that supplied by Marshall and Laird[4]—is that only 20 of their 100 patients displayed optic atrophy, including both unilateral and bilateral.

Pallor of the disc naturally varies in accordance with the number and distribution of the sclerotic areas. Holden[12] divided it into three classes: (a) pronounced whiteness of the entire extent of the disc; (b) slight pallor in its entire extent; and (c) pallor of the infero-temporal third of the disc, with the other two-thirds of normal color. This third type is that referred to above, which may be regarded as fairly typical and constant in multiple sclerosis cases. When the axial or papillo-macular bundle is involved alone, temporal pallor is the rule, but more generalized atrophies, such as are characteristic of the eyes of tabetics, show more diffuse pallor.

The actual symptomatic value of pallor of the disc is often hard to estimate. The temporal half of the disc is always somewhat lighter in color than the nasal half, and a perfectly normal pair of eyes may show the disc of one side much paler than that of the opposite eye. This difference has also been detected in early cases of multiple sclerosis, before the patient has become conscious that his visual fields are contracted or his vision dimmed. Holden[12] offers these facts as lessening the value of disc pallor as a diagnostic sign.

(6) Alterations in the Visual Fields: In most cases of retrobulbar neuritis—whether due to multiple sclerosis or some other cause—as well as in other progressive disturbances of the function of vision, a central or paracentral scotoma is likely to be early in evidence. Cohen[11] asserts that the initial manifestation is a relative scotoma for color. Only 20 per cent of Marshall and Laird's[4] patients showed field changes, but they believe more detailed examination might have shown a larger percentage than did the routine tests.

It has been my own experience that contraction of the fields, for colors especially, happens very often, but reports of multiple paracentral scotomas frequently appear in discussions of multiple sclerosis and its eye manifestations. Holden[12] claims, however, many defects of which the patients complain, such as those indicating peripheral contraction, are functional rather than organic and cautions examiners not to forget the power of suggestion, which is well known to be easy to bring to bear on the subjects of such nervous disorders as multiple sclerosis. Improper technic by the examiner taking the field may also vitiate the results. Although the defects seen in the field which are most characteristic of multiple sclerosis are central and paracentral scotomas, even when testing for these I have found the patient may get tired and begin to give confused and contradictory answers.

(7) Papillitis and Papilledema: Inflammation and edema of the optic papilla is a distinctly rare finding among the eye signs of multiple sclerosis. In the most recently published series, Marshall and Laird[4] mention only four cases of blurring of the disc margins and none at all of papilledema. Nonetheless choked disc does occur in multiple sclerosis and should always be considered as a possibility. Sugar[13] made a search of the literature and was rewarded by finding thirty-six cases of multiple sclerosis in which either papillitis or papilledema was definitely described. To these he added two cases of his own. One of Sugar's patients had unilateral choked disc with marked visual disturbance, but rapid regression. The other was the bilateral type, the symptoms of which so closely resemble those of intracranial tumor that differentiation is often difficult.

Few of the cases cited by Sugar[13] had any report of the amount of disc elevation, so that papillitis could not be sharply differentiated from papilledema. The general picture is one "of mild inflammation superimposed by edema." This author argues that the formation of a sclerotic plaque directly behind the lamina cribrosa would cause the typical infilteration, dilatation of the perivascular lymph spaces, and involvement of the axial fibers. If the nerve in the area beneath the resistant, "unyielding," dural space should swell, it might very well cause venous compression and papilledema.

In clinical practice the question of the patient's

[10] Abramson, J. L., and Teitelbaum, M. H.: The Argyll Robertson Phenomenon in Multiple Sclerosis, *Am. J. Ophth.* **xvi**: 676, (August) 1933.

[11] Cohen, H.: The Early Diagnosis of Tabes Dorsalis and Disseminated Sclerosis, *Clinical Jour.*, **lxii**: 314, (August) 1933.

[12] Holden, W. A.: The Ocular Manifestations of Multiple Sclerosis, *Arch. Ophth.*, **li**: 114, 1922.

[13] Sugar, S.: Multiple Sclerosis with Papillitis and Papilledema, *Am. J. Ophth.*, **xxii**:135 (February), 1939.

future vision is usually the most urgent problem presented to the ophthalmologist. The ocular manifestations of multiple sclerosis are acute in about half of the cases, but, as we have already seen, the time of their appearance in relation to the duration of the generalized disease varies much in individual instances. No set rules can be established, either as to when the eye disturbances will be most severe or when remissions may be expected. As multiple sclerosis is likely to be characterized by long periods when all symptoms are completely quiescent, those related to the eye will, in all probability, subside and apparently disappear entirely. But the patient should be made to understand that although he will not become totally blind, a central scotoma may reduce his vision so greatly as to make reading and similar use of the eyes impossible. So long as the basic cause—the multiple sclerosis—remains, the "eye trouble" can never be completely banished.

Although the literature relating to eye disturbances in multiple sclerosis is fairly abundant, the subject is one needing far more concentrated study than has as yet been accorded it. Clinical reports should be made whenever possible, thus adding continually to the body of data now on hand. The instruction of general practitioners in the recognition of the earliest symptoms would be of great benefit to all concerned.

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ABSTRACT

JOURNAL SAYS MEDICAL LICENSURE MUST BE GEARED TO WAR NEEDS

Discussing the problem of medical licensure for "dislocated" physicians who have volunteered for service in civilian areas where, because of the war, a shortage of physicians exists, *The Journal of the American Medical Association* declares in its November 21 issue that the processes of licensure in the various states must be geared to meet this emergency. *The Journal* says:

"Some thousands of physicians have already indicated to the Procurement and Assignment Service for Physicians, Dentists and Veterinarians their willingness to be 'dislocated' for the duration of the emergency to meet the needs of the civilian population in some areas from which physicians have gone to join the armed forces.

"When the proposal was made to accelerate medical education in order to aid the provision of additional physicians at the earliest possible time, the Federation of State Licensing Boards, utilizing the Bureau of Legal Medicine of the American Medical Association, made a survey of the laws regulating the licensing of physicians in various states, with a view to adopting at the earliest possible moment means for modification of regulation or of laws to meet the speeded process of education. If a physician is to be 'dislocated' from one area to another in the same state, there will not be any difficulty in licensure. If, however, a physician is to remove to another state in which he has not been licensed, there may be difficulties in securing for him the right to practice. Clearly the processes of licensure must be geared to meet this emergency. No doubt much can be done administratively to meet the situation.

"The granting of temporary permits to practice for the period of the emergency and perhaps for a brief time thereafter has been suggested as one means of meeting the problem. Already a bill authorizing the issuance of such permits for the District of Columbia is pending in the Congress. In one state, New Hampshire, an amendment was enacted fifteen years ago to the section of the medical practice act prescribing qualifications to be possessed by applicants and authorizing the board of examiners to suspend the requirements in whole or in part in case of war or other threatened or existing national calamity. In this period of war, powers rest in the hands of government leaders, the exact limits of which are not fully determined. It has been reported that the Attorney General of the United States has ventured the opinion that licensure laws might be invalidated for the period of the emergency. The suggestion has also been made that state legislatures might immediately pass enabling legislation for such invalidation if necessary to permit physicians to practice temporarily in such states. The legislatures of forty-four states will meet next year so that the necessity of additional legislation might well be considered at this time. Consideration might be given also to the possibility of eliminating fees for reciprocity in the case of a physician who offers himself for 'dislocation' during the emergency. In many states the boards may now grant temporary permits to practice previous to the time of the next available examination. If temporary permits are to be issued, the state boards of registration and licensure will need to establish safeguards to prevent the process from becoming the medium by which standards of medical licensure and practice may be depreciated.

"As is apparent from the hearings on medical manpower before the Pepper committee, some agencies are not adverse to promoting a revolution in the control of medical practice on the basis of shortages of physicians existing in various portions of the country. Already several efforts have been attempted to break down the standards of medical education and medical care and to bring into the practice of medicine half-educated physicians and incompetent cultists. The Federation of State Medical Licensing Boards should realize that there rests on them at this time a great responsibility. The present requirements on licensure should not be permitted to interfere with the supplying of essential scientific medical care to the civilian population in this period of emergency. Neither should there be tolerated any attempt to break down the high standards of medical education and practice achieved by a continuous struggle of more than thirty-five years."

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

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JANUARY, 1943

Editorials

A HAPPY NEW YEAR!

Yes, we can offer this greeting to Indiana Medicine, even though we are in the midst of war of the most terrible far-reaching sort.

We present this greeting because men who are busy are happy— happy in the fact that they are doing things of the greatest moment, and that is just what Indiana Medicine —American Medicine— is doing today and will continue to do throughout the war period.

It is a happy thought, this thing of being of service at a time when *real service* is needed in every phase of our national life.

So, let us approach the New Year as we have done for ages past, with a smile on our countenance, even though that smile be one of the grim sort; we are to be busy and, in being busy, let us be happy!

Medicine's part in World War II, both in the services and on the home front—

EIGHTEENTH ANNUAL SECRETARIES CONFERENCE,

January twenty-fourth

DOCTORS EASTMAN, METTEL, AND CREGOR

The recent passing of Doctors Joseph Rilus Eastman and Howard B. Mettel is a distinct loss to the medical profession of the state and nation. Each of these men had rendered signal service to their profession and to their state.

Rilus Eastman, son of the late Joseph Eastman, one of the founders of the old Central College of Physicians and Surgeons, and a pioneer surgeon of the Middle West, was forced to retire from active practice many years ago, on account of illness. However, he maintained a very active interest in the affairs of medicine, and at a special meeting of the Council, Executive Committee and other Association officials demonstrated his old-time vigor in the discussion of some of the then current economic matters.

As one of the younger surgeons of his time, he was classed as a brilliant thinker, a skillful operator and an indefatigable student of medicine and surgery. His unusual personality attracted hosts of friends in and out of the profession. We knew him years ago, while one of his students, and through the later years the friendship of this man was regarded as a great personal asset.

A good speaker, a clever writer, his statements readily gained an attentive ear, and only recently we came across some of his published articles and were impressed by their clarity and the every evidence that they were written by a real student and observer. It is most unfortunate that the profession was robbed of almost two decades of further active service by this man, due to an illness the nature of which was such that had it appeared some years later it could have been controlled.

Indiana Medicine long will remember the last of the original Eastmans—the father and two sons —the second son being the late Thomas B. Eastman.

Howard Mettel, a much younger man and one of whom it might be said "was just gaining his spurs," had recently left Indiana to take over the work of director of Red Cross Medical and Health Services of the midwestern area, comprising eighteen states, with headquarters at St. Louis. For some years he had served as Chief of the Maternal and Child Health Bureau of the Indiana State Board of Health, and in such capacity had long since gained a nation-wide acknowledgment of his ability in this field.

He had written numerous articles for the various medical magazines, the latest having appeared in THE JOURNAL for December.

Since the above was written, we learn of the passing of Dr. Frank W. Cregor, a specialist in the field of dermatology, who for many years had served as professor of dermatology and head of the Dermatological Department of the Indiana University Medical Center. His public service included a term as member of the Indiana Senate and also as a member of the State Board of Health, and he

was a member of the Judicial Council of the American Medical Association for ten years. In 1927 he served as president of the Indiana State Medical Association.

These men have added much to the heritage of Indiana Medicine, each being a student of the highest degree and each possessed of the ability to understandingly give forth his views.

THE CHANGING YEARS

Time was when one approached the New Year with no misgivings; for most of us it was but another year before us; 1943, however, presents a different aspect. During the year just closed the entire civil and economic picture has changed. We are in the midst of a global war such as never before has been known in all the history of the world. Already many of the things that heretofore have been taken as a matter of course are now "regulated"; we have restrictions on this and that, and many items we once considered essential to our well-being have been placed on the taboo list.

Oil and rubber probably head the list of materials the rationing of which has brought about the greatest change in our economic life. We had come to be a fast-moving nation. Everything was done at top speed, and this pace called for rapid transportation which meant that we found ever-new uses for oil and rubber.

Again, in the matter of heating our homes and places of business, many of us recall the days when wood was the most commonly used source of heat for these purposes. Later, the use of coal, as a means of heat in our homes, became more and more common. In more recent times the use of oil for this purpose became quite common, and still later gas was being used as a fuel by hundreds of thousands of families throughout the land.

Our sources of food and clothing underwent many changes, as did the kind of food and clothing we used. Each year brought new ideas, most of which were adopted by the people of the country. In fact, we were rapidly learning to expect too much in all walks of life. We no longer could withstand hardships of any sort without complaining loudly. Some of us might even have been entitled to the name of "mollycoddles."

But a total war has changed all that; in addition to the restrictions already mentioned, we have many others, with many more to come. The American people are convinced that, at least for the duration, we will have to radically change our mode of living and doing.

Official Washington issues edict after edict, telling us just what we may expect; "Manpower" is to be rationed and all food stuffs are to be limited to actual necessities. We already have become inured to the restrictions in the use of sugar and coffee; now it becomes our duty to adopt a similar attitude toward meats, canned goods, et cetera.

The practice of our profession, for many years the target of self-centered individuals, is no longer as secure as we had thought it to be. Many restrictions that for some months appeared to be only chimerical are now in the immediate offing. The medical profession, stripped of so many thousands of its members, has a gigantic task ahead of it. With our limited numbers we must carry on in the guarding of the health of our Army and our civilian population, even though it means more work and extra hours; this is expected of us, and never has the medical profession failed in meeting such expectations.

And, while we are carrying on these additional duties, we must be on the lookout for attacks from within and from without. We say "within" for the reason that the profession already harbor many renegades, doctors who are wholly self-centered, have no regard for the professional interests and have openly allied themselves with those who would bring about the regimentation of the greatest of all the professions.

One of our best weapons against these attacks is the continual "hammering home" to our patients and our friends the fact that the medical profession is rendering an invaluable service to the country in time of war, and that it is more than unfair to be compelled to fight these attacks at a time when almost forty thousand of our members are in actual war service.

Let's wake up to the fact that we have a whale of a big job before us — that of caring for the folk at home and fighting off an insidious enemy!

THE OBERLIN AWARD

Mention was made in a recent number of THE JOURNAL concerning the plan of the Lake County Medical Society to create an annual award to laymen for outstanding achievements in the advancement of public health. The first awards were made at the annual joint dinner of the society and the Woman's Auxiliary. Four such awards were made, covering the past four years.

The idea of the award was first suggested to the council of the society by Rollen W. Waterson, executive secretary for the past several years. It was to commemorate a man who was a charter member of the society, and who for forty-three years had done yeoman service for organized medicine. He and his wife lost their lives in an automobile crash in March, 1941.

The first of these awards, for 1939, was posthumously made, to the late William P. Gleason, general superintendent of the Carnegie-Illinois Steel plant at Gary. Mr. Gleason's outstanding achievement in matters pertaining to health was the indefatigable efforts he put forth in aiding the Lake County Medical Society to establish what is now known as the James A. Parramore Tuberculosis Sanitorium. Without the aid of Mr. Gleason it is doubtful that the hospital would have been built, for it was he who so maneuvered as to divorce all politics from the project, and it was he who served as the buffer all through the period

of construction of the institution. During the remainder of his life he kept in close touch with the hospital and with tuberculosis prevention and treatment.

The second award, for 1940, was made to Frank Hoess, local manufacturer, who for many years has served as president and guiding hand for the Lake County Tuberculosis Association, also as president of the Board of Trustees of the hospital. Of equal value was the work of Mr. Hoess in breaking up the old plan of indigent medical care being awarded to a single individual in our townships, this award being regarded solely as a political plum. Dr. Oberlin was made chairman of the committee several years ago, which was charged with breaking up this practice. He immediately enlisted the support of Mr. Hoess in this program, who at once entered into the matter with a dynamic force possessed by few men. His campaign was based on the slogan, "Even the indigent is entitled to his choice of physician."

Mr. Hoess is known as a health enthusiast, as he puts it, "Health is man's greatest asset, and too often the one most neglected."

The third and fourth awards, for 1941 and 1942, were made to the *Gary Post-Tribune* and the *Lake County Times* (Hammond). These awards were accepted by the respective publishers in behalf of the staffs of their papers. The award committee properly decided that the press of the county should be thus recognized for their continuous coöperation with the local medical society, these relations during years past having been most cordial.

Thus goes down into medical history what is believed to be the first instance in which a medical society has established such a plan to annually honor the memory of one of its members. Similar awards will be made in future years, such honors going only to those who are in no manner connected with medicine, yet have rendered invaluable services to the furthering of the health of the people of the nation. Not only do we thus revere the memory of an outstanding member of the profession, but we point out to the country that medicine recognizes the assistance of lay members in our health programs.

THE FRESHMAN YEAR IN MEDICINE

The matter of selecting students for the freshman year in medicine is one of greatest importance and for many years has had the attention of the Association of American Medical Schools; numerous plans have been tried, many of which were based on an "aptitude test" as given in the pre medical schools of the country. While this test has much merit, it was patent that it had its shortcomings and that not too much stress should be given it; that is to say, capable students from a curricular standpoint may be found to be a bit slow in responding to various I. Q. tests, yet they are good students and commonly prove to be successful in the practice of medicine.

For many years some institutions have adopted the system of turning the matter of freshman-class registrations over to the dean of the school; this plan has much merit and many objections. This definitely is not a one-man job, nor is it fair to ask one man to assume the full brunt of it. Too often the personal criticism leveled at the dean is unwarranted.

The Indiana University School of Medicine has, we believe, adopted an ideal system of selecting freshman students—that of a rather large faculty committee, the members of which give *personal* interviews to all applicants in addition to a very close scrutiny of the academic record of the individual. This plan has many advantages, among which is that it affords a personal contact, a thing much to be desired. The committee meets the applicant in person, has a chat with him and is thus enabled to form a first-hand opinion as to which of these young men will be better fitted for professional life.

We have talked with several members of this committee, all of whom are agreed that the present plan is far superior to the older procedures. There is, however, one drawback to the plan, that of "outside static." By that we refer to the usually well-meant but ill-timed efforts of physicians about the state to boost the cause of this or that applicant. These young men are asked to file references as a matter of course, and this being done should end that part of the program. We all have occasion at some time or another to meet up with a young man who aspires to a medical degree and we want to do all in our power to further that desire; but when the faculty committee has decided on the make-up of the freshman class for the coming semester, that decision should be final. This committee knows far more about such things than an individual physician out in the state.

Not long ago we were asked to express an opinion as to the advisability of requesting this committee to reinstate a young man who had found it necessary to drop out of school because of a serious malady and who had made an appeal from the decision of the committee. Our answer was to the effect that we believed the committee to be thoroughly competent to decide such questions, and that their decision was most satisfactory to us.

We see no reason for changing our position in such matters and would strongly urge our members to hesitate before asking the committee to make a special ruling in an individual case.

Dues are Due!

WAR BOND PURCHASES

Advices from Washington are to the effect that the War Bond Campaign will be stepped up, come the first of the year; it seems that responses to these appeals have lagged a bit in the past two or three months. This is one matter that cannot be allowed to lag — it is of the most vital importance that the funds from this source continue to reach the Treasury Department; ready cash is one of the most needed things these days.

The purchase of these interesting bits of lithography should become, more and more, less of a drain on our pocketbooks; what with the many restrictions now in effect, there is less spending on the nonessential things —purchases that we long thought necessary. We do not travel as in former years. Official advices right now are to the effect that civilian travel is practically "out for the period from December 12 to January 12."

We do not hie ourselves to the dining palaces and to the night clubs, as has so long been our wont. The former do not have the wide array of tempting viands, the latter do not have the glamour of former times, so they do not attract us as they have in the past.

But the "big idea" is that Uncle Sam needs cash money — money he can pay out without long-delayed congressional action. Ready cash, you know, does things a lot quicker. Physicians, so we are told, along with some of the other professions, are laggards in the matter of buying War Bonds. We cannot fathom this; they afford the best and the safest investment of today; the money thus expended will do much to hasten the end of the war.

Just one more suggestion, better by a Bond now —or else! Uncle Sam knows as to your financial status and one of these days, so we predict, he will crack down on those who have been slow to attend to his appeals.

Editorial Notes

It is anticipated that soon after the first of the year we will be officially advised as to how many additional medical officers will be needed for the armed forces, and just how many of these will come from Indiana. It is freely predicted that the increase in our National Army will be very rapid during the next year, estimates as to the total ranging as high as nine million men. The induction of the 18-20 age group, plus the influx from a changing of ratings and the addition of thousands of married men without dependents, will account for this increase. This increase, of course, means additional medical officers, and THE JOURNAL will endeavor to keep pace with the announcements from the War Department.

The London correspondent of the American Medical Association forwards a unique surgical report, that of the safe removal of a "live" aerial bomb from the thigh of an air raid victim. The exact diagnosis as to the nature of the embedded foreign body was made via x-ray and was confirmed by a British Army expert in the identification of explosives.

Officials of district medical groups are strongly urged to see that dates set for their meetings do not conflict with other such gatherings. Then, too, we must not expect too much of our official family in the matter of visiting every section of Indiana. With travel restrictions of all sorts they will find themselves unable to answer all such invitations in person.

Heretofore, in considering the etiology of tularemia, we have rather automatically looked to rabbits as the source of the infection. Now comes a story from the *Vevay Democrat*, stating that a local resident was seriously ill from the disease, the infection having been traced directly to a quail. It long has been known that ticks infest many of our game birds, as well as the animal life, but this is the first instance that has come to our notice where the quail is charged as being the offender.

Press clippings from all over the state indicate that our Indiana press is giving more attention and more space to the weekly releases sent out by our Bureau of Publicity. They have been good to us in years past, but now it seems that almost every release is being printed, often with added comments from the editor. We are still of the opinion that this Bureau is the greatest of the many monuments that might be erected to the memory of that "Grand Old Man of Indiana Medicine," the late William Niles Wishard, Sr.

Just another note about your "gas cards"; don't abuse the privilege thus afforded members of the medical profession — most doctors won't, a few probably will. It might be well to remember that Uncle Sam will have a mighty army of sleuths at work, each of them looking for some evasion of the gas rationing law. If your neighbor has an "A" card and sees you taking off on some unnecessary jaunt, said neighbor is most likely to be critical and perhaps may say something about it. Gas rationing is just that, and so long as the ruling is in effect let's make the best of it. Staying close to home will do a lot of things for us; we will become better acquainted with our neighbors, and we will get a lot of odd chores done about the place that have long been neglected. *Use your gas card as it is intended to be used!*

With all the many activities in which we are asked to take part, we should not lose sight of the importance of our blood plasma banks, a most vital part of our Civilian Defense program. We should take every opportunity to urge our patients to make these blood donations, to the end that each blood bank shall be fully equipped for any local emergency.

For almost a year, now, Indiana Medicine has made a signal contribution to the war effort, in that our Executive Secretary, Tom Hendricks, continues in his capacity as Consultant to the Procurement and Assignment Service. Several Washington officials, in commenting on this, remarked to us that such services had been found to be invaluable. We are indeed proud to have made this contribution and to be able to continue to do so. Our headquarters' staff has managed to carry on most admirably, with "the boss" away approximately half the time. We are indeed fortunate in having such a staff down there.

The December number of THE JOURNAL carried on informative and authoritative article on "Tularemia in Indiana," which should be of more than common interest to Indiana physicians. Once a rare disease in these parts, tularemia might now be classed as rather common. Hunters, and folk who handle wild rabbits in preparing them for the table, still are more than careless in the handling. And, so we have reason to believe, physicians ofter err in the diagnosis of this disease, where an early diagnosis is most important. It might be well to get out the December number and refresh your mind on this disease.

"Unnecessary Night Calls" would be a very entertaining and instructive subject for an address before a lay audience these days; most any physician in active practice should be able to make such an address. We tell folk about this through our local press, yet these pestiferous calls filter through our phones. A railroad employe "got a cinder in the eye"; said nothing about it at the time, and did nothing about it after he had ended his work for the day. A second day went by without any attention to the eye, and on this second day the man felt able to sit through a "double feature," take a little drive with the missus, then to work until about midnight. Soon thereafter, the eye really was bothering him, so the company oculist was haled out of bed to render the necessary attention. His accident report was such that the offending chap was "brought up on the green carpet," missing a whole shift from his work — without pay — and had to listen to a series of lectures on safety, but the doctor had made the night call, unnecessarily.

The City Department of Health, Fort Wayne, is properly proud of the fact that they have not had a death from typhoid fever in that city in the past seven years. We recall that along about that time, due to a break in a water main, or perhaps in a section of the local sewage system, there were several cases reported. The present report is but another proof of the well-demonstrated fact that typhoid fever is an outlaw and should be treated as such.

We predict that one of the most brilliant chapters on medical service in the present war will be that relating to the tropical diseases. In a global war men from all nations are intermingled; American soldiers are in the tropics for the first time and of the many diseases to which they might be subjected, we of America have now first-hand knowledge. The medical department of our armed forces is, however, alive to the entire situation and has it well in hand. What with the various vaccines and the sulfa drugs, plus the investigative mind of American Medicine, these tropical diseases are being met and conquered.

Much is being written these days concerning the flight surgeons, a group of young medical men chosen for special training in this field. Of late we have been looking into the matter and find that this training is quite some thing; takes a period of several months of intensive study, plus several trips through a man-made variance of atmospheric pressure, on through extremely lower temperatures, such as found in the stratosphere. On completion of the course the flight surgeon is assigned to an air squadron, going wherever the squadron is assigned. It appears popular with many of our younger men.

In looking over the current number of *Steel Facts*, a monthly publication of The American Iron and Steel Institute, we came across a number of items that are of interest to wartime medicine and to the reading public in general. Some of these comments follow:

The new wartime uses of steel have "freed" 60,000,000 tons of brass, 180,000,000 tons of aluminum, and 591,000,000 tons of copper for jobs where they are indispensable during these times.

Ship building now ranks as the Number One steel consumer, taking one out of every five tons produced.

The 7,585,000 tons of steel produced in this country during October, 1942, exceeds Japan's estimated annual capacity.

The payroll of the steel industry in October was $125,000,000.00, fifty per cent greater than that in a similar period three years ago.

Steel output for 1942 will be seventy per cent greater than in 1918, a World War I year.

We would again offer comment on the future of our county medical societies, chiefly concerning meetings, particularly in the smaller counties. In the first place, guest speakers will be limited for months to come, which means that local programs again will become popular. We still believe that the suggestions of Dr. Maynard Austin have more than common merit — that such counties combine their efforts, and that they arrange a share-the-ride with their confreres. County medical societies must carry on; without these organizations American Medicine soon would begin to decay, for these are the very backbone of medicine. So we would urge the most strenuous efforts to keep going, even though it may mean an additional load to the great burden we already have assumed.

Criticisms continue to filter in regarding the fees charged for indigent medical care, under the direction of our County Welfare Agencies. From some of the reports that have come to us it would seem that these criticisms are rather well-founded; in many cases the fee indicated is completely out of line. It is true that in some welfare set-ups it is planned that the regular fees be charged, while in other cases the fees are to be a certain percentage of the regular charges prevailing in that community. Notwithstanding the fact that the present state welfare set-up in this regard has brought about an increase in fees, over those prevailing several years ago, it still remains our duty to remember that we are dealing with indigents, folk who have received these attentions, years ago, at a very reduced rate or even without fee of any kind. We believe the rank and file of the Indiana profession is more than fair about this matter, but it would seem there are some "chiselers" in our midst.

A writer in the "Vox Pop" Department of the *Indianapolis Times*, December second, issued a warning that is very apropos and touches upon a vicious custom prevalent in the larger stores of some of our cities. The writer comments on the sale of various alleged "cures" by barkers in these stores. On many occasions we have paused to listen to these fast-talking chaps, as they tell the gullible shoppers of their ills—and that he has just what it takes to cure them. These fellows are taught a routine line of chatter, usually wear a long surgical gown, not seldom having a stethoscope projecting from a pocket, and "hand out the bunk" with great gusto. As a matter of fact, this amounts to the practice of medicine and could easily be stopped if we could get someone interested in the matter. While on the subject, it would seem that right now, when so much is being said regarding the conservation of health and so many physicians are away from their business, that something might be done to curb the blatant radio advertising of this and that panacea.

Surgeon General McIntire, of the United States Navy, addressed the recent Secretaries-Editors' Conference, in Chicago. Among the many informative statements was one concerning mortality in the present war, particularly casualties in the Solomon Islands area. He stated that the mortality rate in cases reaching the hospitals, and this includes the emergency hospital hastily erected in the heart of the jungle, was about one per cent. This is an astounding figure, since the present war has brought casualties of new sorts due to modern war machines, et cetera. He stated that much of this brilliant accomplishment was due to the newer concepts on the treatment of burns and a generous use of the sulfanilamide group.

In all of our industrial communities the number of women engaged in wartime jobs is increasing. We long since have become accustomed to women serving as taxi drivers, as meter readers for the utility companies and such tasks. Now our buses are well sprinkled with women on their way to or from the job, and they are dressed for the part — slacks, as a matter of course, heavy shoes (many of them with steel toes) while the head usually is covered with a turban of some sort. We often have noted one thing, however, most of these women workers seemingly refuse to part with their nail decorations; their hands and faces may be grimy, but the oil nail polish still persists.

There is no little discussion in current publications regarding what appears to be an increase in the incidence of tuberculosis, and the cause for this occasions much comment. While we are in no sense an authority on the subject, yet it occurs to us that several factors might be considered. One of these is industrial fatigue. Many employes seem able to cope with the additional work they are doing as compared to former years, without detriment to their health, while others complain of lassitude and lack of ability to carry on, after hours, as they used to do. Then there is the mental stress; we are inclined to credit the vast majority of war workers with a determination to do their very best and to give all they have in the furtherance of the war program. It also might be taken into consideration that dietary changes, some of them forced by the various rationings, et cetera, often will break down the resistance of the individual. Scores of workers have told us that the shortage of the better qualities of meat seems to have affected them. Now, if we are to add butter, milk and cheese, together with several other hitherto-regarded dietary essentials to the list of proscribed foods, we might well indeed give more than cursory attention to the matter. Physicians will do well to give due regard to loss of weight, lassitude and various other symptoms in patients engaged in wartime employment — ever being on the lookout for incipient tuberculosis.

President's Page

GREETINGS AND A HAPPY NEW YEAR TO ALL!

My New Year's Wish

It is my sincere wish that I may have the wholehearted cooperation of the entire State Medical Association while serving as your president.

1943

No one can make a too positive prediction as to what this year will bring to the medical profession. There are some things of which we may be certain:

1. Those of us who are left to do the civilian practice will be extremely busy.
2. Each of us will, no doubt, be denied a vacation period.
3. More physicians will be taken from civilian practice and placed in military service.
4. Legislative matters will occupy a considerable amount of our time for two months. If any member of the association is called upon to help in any way with these matters, I trust that he will find time to do what is asked of him.
5. The work of medical organizations may suffer from various causes, but county societies should continue to function at least on a part-time basis. This is very important.
6. There may be more and more indications from the public that it is not receiving adequate medical care; but, with the elimination of the many unnecessary services which the public demands, I am sure the very necessary care which the public needs will be adequately met. Oftentimes propaganda to the effect that the public is not receiving adequate attention may have a very sinister and ulterior motive.
7. Attempts may be made to break down the firm policies of the Board of Medical Examination and Registration. This should not be allowed to happen.
8. We who are left in civilian practice are in no way making the tremendous sacrifices that those do who have been called into active service; therefore, we should begin a rehabilitation program this year for those who will later be returning from the service.

Committees

These have been selected and appointed for the coming year. You will note that not many changes have been made in the personnel of the committees. It is my belief that when a committee has done a good job it should be continued, and this is especially true at the present time. Each section of the state is fairly well represented.

The Woman's Auxiliary

I was amazed at the amount of work which is contemplated by the Woman's Auxiliary for the coming year, and the splendid manner in which it is organized. I am sure that under the leadership of its able president, Mrs. Duemling, it will have a very successful year.

Questionnaire

This was ordered by the Executive Committee to be sent out as a trial procedure for the reason that Marion County has the largest number of members in the service of any county in Indiana. It was thought that if we had a good response from this group it would be carried out on a state-wide basis. If not, it would be dropped. The response to date has been very good, and it would appear that we shall have to make it a state-wide program.

Doctor Austin

In completing this, my first page, I wish to say something about Doctor Austin. Throughout the number of years that I have known him, I have learned to admire him for his frankness and fairness, and for having at heart the very best there is for medical organization. I am sorry I shall not be able to produce a page which will be as entertaining as his, especially his "Valedictory." He has been a fine friend.

Again I wish you all a Happy New Year.

J. A. McCarty

ON THE REMOVAL OF A DEAD BODY FROM THE HOSPITAL

ALBERT STUMP
INDIANAPOLIS

The question has arisen as to whether or not it is necessary that the doctor pronounce the patient dead on view of the body before the body can lawfully be removed from the hospital; and as to what, if any, liability might be incurred by the hospital or by the nurse and undertaker participating in the removal of a body to the undertaker's morgue without a report of death first being made by the attending physician.

The law requires that physicians make reports to the proper health officers of deaths which occur under their supervision. The certificate of death is to be made immediately and a burial or removal permit is then issued before any disposition of the body can lawfully be made. But the removal referred to in the statutes means the removal of the body from the State. The disposition of the body means the burial, cremation, or other permanent disposal of it.

The section under consideration (Burns' 1933, Section 35-115) reads in part as follows:

> "It shall be unlawful for any undertaker, sexton, or other person to bury, cremate, or otherwise dispose of any human body until he has received a permit to do so from a health officer. And no such permit shall be issued by any health officer or deputy until there has been delivered to him a certificate of death written in unfading ink or indelible pencil and completely and accurately filled out by the proper person."

The act of removal of a body from a hospital to an undertaker's morgue does not constitute the disposal or disposition of a body, as is shown by the law governing embalmers and funeral directors, which is Chapter 165 of the Acts of 1939 (Burns' 1942 Supp., Section 63-7207). In that Act "embalming" is defined to mean "the preservation and disinfection, or attempted preservation and disinfection, of the dead human body by application of chemicals externally, or internally, or both." The term "funeral directing" includes the business or profession of "preparing dead human bodies for burial in any manner . . . or the disposition of dead human bodies in any manner whatsoever."

The same Act (Burns' 1942 Supp., Section 63-722) provides that "dead human bodies shall be in no way prepared for burial except in an approved embalming room by an embalmer licensed to do embalming in the State of Indiana, nor shall any permit for the burial of a dead human body be issued by any health officer in any State to any person other than a duly licensed funeral director."

Now if the disposal of dead human bodies includes the embalming; or if the permit for the burial should be construed to include the preparation for the interment, in neither event could it cover the mere transporting of the body from the hospital to the undertaker.

The earliest point at which the physician's certificate becomes necessary in connection with the disposal of the body is the point at which authority is to be obtained through the issuance of a burial permit. The burial permit cannot be issued until the report of death has been made by the physician to the proper health officer. The physician discharges his duty in the matter if he makes the report of the death immediately—that is, as soon as it is reasonably possible to do so after he knows of the event occurring. Then it becomes the duty of the funeral director to obtain the burial permit before he does anything in relation to burial.

From the foregoing it follows that the nurse and undertaker would incur no liability in the removal of the body to the undertaker's morgue, for that removal is not an act constituting a part of the whole act of burial, although the preparation of the body for burial after such removal would be part of the entire act of burial. So the undertaker should have the burial permit before he embalms the body, and the burial permit cannot be issued until the physician's report of death has been made. But the moving of the body, pending the making of the report, is not regulated by law—except that the body must not be removed from the State.

ABSTRACT: HOW SURGEON HELPED SAVE HOSPITAL

How a British surgeon helped save a hospital that had been bombed is described in *The Journal of the American Medical Association* for October 24 by the regular London correspondent of *The Journal* who reports that:

"High explosive and incendiary bombs fell on a hospital, setting it on fire. The house surgeon, Dr. Philip Baxter, wearing a dressing gown over his pajamas, climbed a fall pipe to the blazing roof. Then he used the girdle of his dressing gown as a rope to hoist up buckets of water, which were tied on by helpers below. He got the blaze under control. In leaping from the roof to a lower one he injured an ankle but went to the operating theater to attend the victims of the raid. When there a message came that an elderly woman was trapped under wreckage in another part of the town and that medical help was urgently needed. He went and had to crawl down a tunnel in the débris to administer morphine. He waited until she was extricated and sent to the hospital. He then hobbled back but was in great pain. While on his way a policeman lent his bicycle. Cycling was no less painful but was quicker. On arrival he returned to the operating theater and continued his work. Only after he had been on duty for several hours did his own injury receive attention. . . ."

Secretaries' Conference

INDIANA STATE MEDICAL ASSOCIATION

Indiana World War Memorial

INDIANAPOLIS

SUNDAY, JANUARY 24, 1943

PROGRAM

1:30 p. m. Call to order and opening remarks by A. M. Mitchell, M.D., Chairman.

1:35 p. m. Welcome to secretaries by J. T. Oliphant, M.D., Farmersburg, President-elect, Indiana State Medical Association.

1:45 p. m. *"Wartime Community Health Problems (Medical Situation in Kaiser Shipyards),"* JOHN H. FITZGIBBON, M.D., Portland, Oregon, Chairman, Oregon War Emergency Health Committee.

2:15 p. m. *"Lake County All-Out Medical Plan,"* ROLLEN W. WATERSON, Gary, Executive Secretary, Lake County Medical Society.

2:45 p. m. Discussion.

3:00 p. m. *"Red Cross Activities and Medicine,"* ALBERT McCOWN, M.D., Washington, D. C. Director of the Medical and Health Service, American Red Cross.

3:20 p. m. Legislative program.

Secretaries' Conference—continued

3:45 p. m. *"1943 Program of War Participation Committee of the A. M. A.,"* WALTER F. DONALDSON, M.D., Pittsburgh, Pennsylvania, Chairman, War Participation Committee, A.M.A.

4:15 p. m. *"Indiana Doctors Carry On,"* CHARLES R. BIRD, M.D., Indianapolis, Chairman, Procurement and Assignment Service for Indiana.

4:30 p. m. Discussion.

5:45 p. m. DINNER—INDIANAPOLIS ATHLETIC CLUB.

Introduction of speakers by C. H. McCaskey, M.D., Indianapolis, President, Indiana State Medical Association.

Speakers: BRIGADIER GENERAL DAVID N. W. GRANT, M. C., Air Surgeon, Washington, D. C.

Subject: *"Aviation Medicine and Victory."*

BRIGADIER GENERAL FRED RANKIN, Washington, D. C., President, American Medical Association. Subject: *"American Medicine at War."*

All members of the Indiana State Medical Association are invited to attend. Dinner will be free to the county and district medical society presidents and secretaries. For others, the charge will be $1.75 per plate.

CHOOSING LABORATORY TESTS

L. G. MONTGOMERY, M.D.
MUNCIE

It is not always easy to choose from among the great number of laboratory tests the ones which will be most useful in the conduct of any given case. The increasing pressure of volume of work among the members of the medical profession who are striving to care for their own cases as well as those of their confreres who are in service makes it imperative that any and all means which will facilitate clinical study and treatment of patients be utilized as fully as possible, and the use of laboratory tests is one of the means which may speed up the care of patients. A careful history and physical examination, a thoughtful consideration of the differential diagnosis, the subsequent decision as to the correct diagnosis, and the establishment of treatment and probable prognosis are all usually made easier and more certain by the use of well chosen and skillfully executed and intelligently interpreted laboratory tests of various kinds.

On the other hand, nothing can be more deplorable than the ill chosen and badly managed laboratory conduct of a case. It is expensive and confusing, and tends to rob the clinician of his inherent right to think for himself. It, therefore, behooves us to take stock of what we may do to facilitate our approach to the laboratory armamentarium of tests and make every effort to use these facilities with precision and understanding.

There is certainly no rule-of-thumb in the choice of laboratory tests, but a system of reminders may be used in building up a case in the way that a scaffolding is useful in guiding the erection of the superstructure which it outlines. For this reason a careful review of the chief varieties of tests as they relate to the clinical case may be helpful. With a list such as this in mind it will be possible to remind oneself from time to time, as the case progresses, of the possible ways of adding to one's knowledge of the case and yet be economical of time, material. personnel and exchequer.

Background:

Several premises should be borne in mind before any test is used:

1. Do not use a test unless there is some reason for it.
2. Never use a test unless the normal values are known and the variations from normal are in mind, and here your pathologist will be of assistance.
3. Always complete the history and physical examination before choosing the laboratory tests.
4. Go as far as possible with the diagnosis without the aid of the laboratory.
5. Then use the laboratory as fully as possible in the best possible way to elaborate and verify and extend the clinical opinions which have been formed.

In choosing these tests a few simple rules will help:

a. *Use simpler tests first.* Qualitative tests often are all that is necessary at first. Later quantitative tests are more likely to be definitive.

b. *Group the tests when possible.* For example, in a case of anemia it is better to do all the tests that are likely to be useful at one time since the intimate inter-relationship of the hematologic picture does not lend itself to separation into its component parts.

c. *Consider the availability of the tests.* Some laboratories do not have facilities for some of the more complex and rarer tests. The advantage gained from a test, the performance of which occupies the time of a technician for several hours, may not be great enough to justify the time and expense involved. Also, a test which is run only occasionally is less likely to be accurate than one which is second nature to the laboratory technician.

d. *Think of the laboratory staff.* Don't ask the technician to work beyond capacity either in time or technical requirements. Don't ask a technician to work out of regular working hours unless absolutely necessary. Don't rush a technician by demanding reports in a hurry. Don't order "stat." work unless absolutely necessary. Each test ordered "stat." may cause the technician to interrupt some other work while this single test is carried out.

e. *Don't order needless laboratory tests.* This is expensive and wasteful of time, materials, and personnel.

f. *Be sure that the instructions for performing the test are understood by all concerned.* The nurse, the laboratory technician, and the patient make a team when a test is to be run, and any lack of coöperation in this team may end in less than satisfactory final results. A few minutes explaining the necessary steps may save loss of information or the need for repeating the test.

g. *Don't order new tests until they have been tried and found dependable in your own laboratory.* A discussion with the pathologist may reveal more dependable and better established methods of gaining the desired information.

Choosing Laboratory Tests

With all these factors in mind let us turn our attention to the selection of the actual tests themselves. There are many ways of choosing tests, and yet some physicians choose them "freehand," without any systematic method of selecting the particular laboratory procedures to be employed in the case which is being studied. A review of some of the many possible approaches to the logical selection of laboratory tests may be useful.

1. *Basic tests:* It is generally considered advisable to do a certain amount of basic laboratory work routinely on all cases. The variety of these tests varies very little and usually consists of a complete blood count, a urinalysis and a serologic test for syphilis. In certain types of cases other tests may be considered desirable. Some pediatricians require routine throat cultures and vaginal smears. Some cardiologists do routine electrocardiograms, and patients on diabetic services may have glucose tolerance tests as a routine preparation for their clinical work-up. Whatever tests are chosen, they should be considered simply foundation tests to which others may be added as indicated.

2. *Tests suggested by signs:* In the course of the physical examination of the patient, anatomic and physiologic variations from the normal may suggest certain laboratory tests. An example might be the finding of fixation of the pupillary reflexes which might suggest a spinal fluid examination and, further, that it would be desirable to examine the spinal fluid for evidence of syphilis and study the colloidal gold reaction. A lump in the breast suggests the need of a biopsy, and a membrane on the tonsil would indicate the need for smears and culture from the involved area, while blood in the sputum makes a bacteriologic examination of the sputum advisable.

3. *Tests suggested by symptoms:* Just as signs of disease may suggest certain tests, symptoms may also be used as reminders by which other tests may be chosen. Right lower quadrant pain usually suggests the use of a total and differential leukocyte count, with the addition of a sedimentation rate and a urinalysis in women. A productive cough suggests a sputum examination; weakness, tremor and exophthalmos suggest a basal metabolic rate determination; pallor suggests a hemoglobin determination and total erythrocyte count; and polydipsia and polyuria would be an indication for a urinalysis, with particular attention to the examination for glucose in the urine.

4. *Tests suggested by known or suspected disease:* When a patient is suffering from a known or suspected disease the tests may be chosen to suit the elaboration of the status of the patient in the course of this disease. A case which is suffering from severe burns will suggest the use of certain laboratory aides in the management of burns, such as hematocrit measurement and total plasma protein estimation. A case of syphilis will need a blood serology, and in tertiary syphilis the need for an examination of the spinal fluid should be considered. If the patient is suffering from clinical tularemia it is logical to use skin tests or agglutination tests to make the diagnosis specific.

5. *Tests to differentiate between two or more disease conditions:* The use of laboratory means for developing a differential diagnosis is frequently overlooked. As an example, an acute salpingitis and an acute appendicitis often may be differentiated by means of a sedimentation rate. Throat smears, and in some cases cultures, will often be needed to identify the various types of acute inflammatory lesions of the throat. An undiagnosed coma may require blood sugar and urea determinations to differentiate between uremic and diabetic cases. A serologic test for syphilis may be the means of deciding between a gastric crisis and perforation of a peptic ulcer, or a cerebrospinal fluid examination may be used to identify the various types of acute meningitides.

6. *Tests suggested by the results of previous tests:* One thing often leads to another, and this applies particularly to laboratory medicine. The finding of a positive blood test for syphilis may suggest the need of a cerebrospinal fluid examination, a blood eosinophilia may lead one to make a skin test for trichinal infestation, the finding of numerous eosinophils in the nasal smear indicates an allergic condition and the need for skin tests to determine the source of the sensitivity. Again, the presence of large numbers of leukocytes in the spinal fluid should invariably be followed by the examination of spinal fluid smears and the preparation of cultures, in an attempt to find the causative infecting agent.

7. *Tests suggested by changing conditions:* A patient who is suffering from some disease may develop evidence of complications, or additional indications of disease may alter the whole outlook of the case. In such a case laboratory tests may be needed to identify the source or nature of the complication. A patient who is known to have chronic nephritis may develop edema which would suggest the need for various laboratory examinations, such as a total serum protein and albumin globulin ratio, and a blood urea estimation. A patient who has a chronic otitis media may develop headache, fever, and a stiff neck, which would be indication enough for a spinal puncture and careful examination of the spinal fluid; or a pregnant woman may develop symptoms suggestive of toxemia, at which time the urine should be examined.

8. *Tests which are best used in series:* Many tests are most fruitful when used in series rather than singly. Used in this way they will outline a trend rather than a static condition. A single sedimentation rate is often a waste of time, while several, spaced at suitable intervals, may be the most valuable indication of the progress or resolution of a disease. For example, the trend of the sedimentation rate is said to be the most effective of all means of following the course of a case of

tuberculosis; blood and urine glucose determinations are necessary in following the course of a case of diabetes; and repeated serologic tests are necessary to follow the syphilitic patient.

9. *Tests used as a guide to therapy:* Many forms of therapy are robbed of much of their value and certainly most of their precision by being employed without the guidance of the laboratory. The estimation of blood cyanates is essential if the clinician is to know how to vary the dosage of the drug in the control of hypertension, while reticulocyte and total erythrocyte counts will indicate the response of a case of pernicious anemia to liver therapy, and in a case of obstructive jaundice the prothrombin time is the best means of measuring the effectiveness of the administration of vitamin K.

10. *Tests used in prognosis:* In some disease conditions laboratory tests may be the only exact means of estimating the prognosis. After the removal of a chorionepithelioma of the testis or uterus, it may not be possible to tell whether metastases are present, whereas a Friedman test, properly carried out, may identify the presence or probable absence of metastases. In a case of suspected vegetative endocarditis the finding of repeated positive blood cultures will spell the patient's doom, and a positive blood culture in a case of pneumonia makes the prognosis much more guarded than if the blood culture were negative. A renal function test may make the difference between a favorable and an unfavorable outlook in a case of nephritis, and in a case of uremia in which the blood creatinine level is elevated the prognosis is much less hopeful than if the creatinine level were normal.

11. *Tests used in groups:* Often various single tests performed in succession are rendered much more informative when they are conducted at one time as a group. Such an instance is well exemplified by a complete blood count, which consists of a number of separate laboratory procedures carried out as a unit. In a case of suspected typhoid it is wise not only to conduct an agglutination test for typhoid, but also for paratyphoid A and B, as well as undulant fever and proteus x-19. If one is making smears for bacteriologic examinations it is usually wise to make a culture at the same time, and if sugar is present in the urine it is customary to examine the urine also for acetone bodies.

This outline is obviously incomplete and represents only a few of the many approaches to the use of the laboratory in clinical medicine. However, it may serve as a reminder of some of the ways of choosing from among the multitude of laboratory tests those which will be most useful in the cases under consideration. If a pathologist is available for consultation, his advice may aid greatly in selecting suitable tests and in interpreting their results. On the other hand, when a pathologist is not available reference to standard textbooks of clinical pathology may afford valuable assistance.

Summary:

The choice of suitable clinical laboratory aids in the conduct of a case is discussed in outline.

It is urged that all possible avenues of clinical approach be utilized before selected laboratory aids are employed.

Various methods of selection are enumerated with illustrative examples.

It is pointed out that it is important to obtain the consultation of a clinical pathologist whenever possible.

When the services of a pathologist are not available, standard textbooks of clinical pathology should be consulted.

ABSTRACT

SUGGEST MEANS OF LOWERING INCIDENCE OF HEMORRHAGE OF THE NEWBORN

The administration of vitamin K to the mother while she is in labor will prevent the depression of the prothrombin level of the newborn and should prove effective in lowering the incidence of hemorrhage of the newborn, J. E. Fitzgerald, M.D., and Augusta Webster, M.D., Chicago, declare in the August 1 issue of *The Journal of the American Medical Association.* "It is well known," they say, "that various types of hemorrhage in the newborn account for a considerable percentage of stillbirths and neonatal deaths. . . ."

They found that "in none of the 641 babies whose mothers had vitamin K during labor was there any evidence of neonatal hemorrhage." Administration of vitamin K to babies with hemorrhage resulted in a strong increase in the prothrombin level and prompt cessation of bleeding.

In their conclusions they say that "There is a normal depression of the prothrombin level of the newborn from the second to the fifth day. This depression is much greater when certain analgesics are administered to the mother during labor. . . . It seems particularly desirable that vitamin K should be administered when barbiturate analgesics are used."

WARNS THAT CAUTION SHOULD BE USED IN ADMINISTERING SULFAGUANIDINE

"The administration of sulfaguanidine is not an entirely innocuous procedure despite its slow rate of absorption from the intestinal wall into the blood stream," Seymour L. Cole, M.D., Brooklyn, advises in *The Journal of the American Medical Association* for September 19. He warns that "Caution should be used in its administration, especially if there are factors present which increase the rate of its absorption or decrease the rate of its excretion."

Dr. Cole reports the case of a woman who suffered severe intoxication manifested by nausea, vomiting, headache, sudden temperature rise, a skin eruption resembling measles, a deficient secretion of the urine, blood in the urine and the presence of the crystals of sulfaguanidine in the urine, following the administration of the drug to combat an ulcerative colitis.

He explains that "Owing to its efficacy against the bacteria of the intestinal tract and its slow rate of absorption into the blood stream sulfaguanidine is becoming increasingly widely used as a chemotherapeutic agent for intestinal diseases. The occurrence of severe reactions to sulfaguanidine therapy, however, apparently has not been recorded up to this time. . . ."

UNDER THE CAPITOL DOME

CRIME COUNCIL DISCUSSES CURRENT NEEDS

Provision for psychotherapy is needed in the state penal institutions, particularly at the men's institutions, according to a report of a special committee on parole of the Indiana Council on Crime and Delinquency.

As a result of its study the committee concluded that many of the mental problems and emotional conflicts which are the real cause of criminality in some of the prisoners could be resolved through treatment interviews if qualified personnel, such as psychiatrists, psychologists and case workers, were available for this work.

The need for mental hygiene appears to be recognized in the penal and correctional institutions of this state, the committee reported, and in substantiation of this finding, said:

"The prison has a full-time psychiatrist, but his time is almost completely occupied by the problems of the Indiana Hospital for Insane Criminals, and he has little time left for treatment of the other prisoners of the institution. The Indiana Reformatory has had psychiatric service in the past but has no psychiatrist on its staff at the present time. The State Farm does not have psychiatric service, but the Indiana Woman's Prison utilizes the facilities of the Division of Mental Hygiene in the State Welfare Department to excellent advantage."

The committee found that "medical services appear to be reasonably satisfactory at the penal and correctional institutions in this state. Physical examinations are given each prisoner at the time of commitment. Treatment for venereal disease is invariably given when needed and many operations in corrective surgery are performed."

But in the field of recreation the committee found the institutions lacking. Much needs to be done, the report said, in the area of recreation, but a start on such programs has been made at both the Indiana State Prison and the Indiana State Farm, where recreational supervisors have been employed. Little is being done at the Indiana Reformatory in this connection.

The committee is composed of Professor Frank Flynn, director of the School of Social Work, Notre Dame University; Dr. James Peeling of Butler University; Mark Roser, child welfare director of the Gary city schools; Thomas Burke, visitor for the Lake County Department of Public Welfare; and Stephen C. Noland, editor of The Indianapolis *News*.

Recommendations in this report fit neatly into a proposal of the council for a drastic revision of Indiana laws relating to the sentences imposed upon persons charged with felonies. Briefly, the proposal is for a series of indeterminate sentences —depending upon the seriousness of the offense— and broadening of the parole system.

A result of the proposal, if enacted into law, would be that hundreds of persons would be placed on probation instead of being sentenced to serve prison or jail sentences. In practice, judges would make a finding of guilty and then parole boards, set up under the council's proposal, would conduct a study of the prisoner's social, mental, and physical background. Persons who apparently would respond to treatment on parole would be permitted to retain their liberty under supervision; the others would be sentenced to serve prison terms.

Those who were sentenced to serve prison terms would be eligible, at the discretion of a state parole board (also created by terms of a bill which the council is drawing up) at the expiration of the minimum term set out in the proposed new flexible code.

The plan is extremely timely now, according to officials of the council, because of the fact that many men who are being held in prison would be released for essential war work and to fill gaps in the manpower set-up.

"Many men, some of them engaged in war work and all of them needed for the total war effort, are being sent to jail or prison when a probation system which provided them with adequate guidance and supervision would make it possible to safely release them," a statement of the council says. "This does not mean that all or even a major part of those who commit crimes should be so released. Certainly it will be no help to the prosecution of the war to release criminals who commit further crimes. Therefore, our courts should be in a position to select carefully those whose release will be in the best interests of society, and to do this the courts should have all the information it is possible to obtain about each offender. Here again an adequate probation system can supply the need through an investigation into the case of each convicted offender."

Dr. John V. Maier of Muncie is president of the council.

The State Board of Medical Registration and Examination last month reinstated Dr. Benjamin F. Patton of Terre Haute.

WHAT WENT ON DURING WORLD WAR I

(Items from The Journal of January, 1918.)

The address of Dr. John H. Oliver, President, has the honor place in the January JOURNAL. He spoke on "Our Association's Activities."

* * *

Other scientific articles were discussions on anesthesia, by E. M. Hoover, Elkhart; postoperative nephritis, Karl Ruddell, Indianapolis; backache in women, J. A. Work, Jr., Elkhart; and comments on the surgery of the thyroid, by W. D. Gatch, Indianapolis.

* * *

The editor discussed complications of tonsil surgery, the idea that the Surgeon General of the Army needed more authority, and the suggestion that there was too much politics in the conduct of the war. (Seems to us we have heard something like this during the present times.) He also had something to say about income taxes for doctors.

* * *

Several county medical societies had announced an increase in professional fees, due to increased living expenses.

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Dr. William T. Gott, secretary of the Indiana State Board of Medical Registration and Examination, reported the theft of a medical license from the office of the Clerk of Kosciusko County, one Omer Brooks having obtained same from a deputy clerk without first having filed the proper certificate from the medical board.

* * *

State association dues were $4.00 per year, for 1918.

* * *

W. B. Saunders Company, medical book publishers, advised the editor of a clever swindler who then was operating in Indiana, taking subscriptions for medical books and magazines, collecting for same — you know the rest of the tale.

* * *

Then, as now, THE JOURNAL was receiving complaints that too little military news was being published; the answer then, as now, was that such news could not be published until said news had been sent in.

* * *

The editor says, "The doctor with an income in excess of $6,000 for 1917 will think that he has been 'hit with a club' when he pays Uncle Sam's regular income tax and surtax, *and in addition, a further excess tax of 8 per cent.*" (Heck, that was nothin'!)

The Madison County Medical Society had set a fee bill for day calls in the city at two dollars, and night calls three to five dollars.

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Lieut. Robert W. Reid, formerly of Union City, had written THE JOURNAL an extensive report on Military Roentgenology.

* * *

A physician desiring to purchase four ounces or so of alcohol for laboratory purposes found it necessary to furnish a bond, the cost of which was five dollars. The editor didn't much like this.

* * *

An increasing number of county medical societies had decided to make no more life insurance examinations for less than a fee of five dollars.

* * *

Some of the training camps reported temperatures as much as fifteen to twenty below zero.

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The patent on aspirin had expired and the owners thereof were moving Heaven and Earth in an endeavor to keep druggists, physicians, et cetera, from using the term.

* * *

There were fourteen thousand commissioned officers in the Medical Reserve Corps, with some seven thousand in the process of being commissioned, sufficient for an army of two million men. Plans were in the making for a stepping-up of medical enlistments.

* * *

The editor complained of the increased cost of publication of THE JOURNAL.

* * *

Base Hospital No. 32 had safely arrived in France. This also was known as the Lilly Base Hospital.

* * *

The editor was impressed with the announcement of the Postmaster General to the effect that his department showed a balance of almost ten million dollars.

* * *

G. L. Verplank had been elected as secretary of the Gary Medical Society.

* * *

Some two pages of this number of THE JOURNAL were filled with announcements of enlistments and the various assignments of Indiana medical men in the armed forces.

Military News

The editorial staff of THE JOURNAL will be pleased to have information concerning the movements, et cetera, of physicians in the armed forces and those being called to the service. We would like to have whatever information anyone wants to send. This applies to those who are in military service as well as those who hear from their friends in the armed forces.

Captain Raymond N. Adler, formerly of Evansville, is now a transport surgeon on the Pacific.

Word has been received that Dr. A. G. Blazey, formerly of Washington, has been transferred from Camp Grant at Rockford, Illinois, to Denver, Colorado.

Dr. Theodore J. Bruegge, former Kokomo physician, has been promoted to the rank of captain and is stationed in a hospital connected with anti-aircraft units in England.

Captain Charles D. Clark, former South Bend physician, is now in the Medical Corps at Huntsville, Maryland.

Dr. Robert E. Daniels, formerly of Decatur, has been appointed a colonel and is now in charge of a detachment at Fort Leonard Wood, Missouri.

Major A. N. Ferguson, formerly of Fort Wayne, has been named chief of the Medical Service at the Oliver General Hospital, Augusta, Georgia.

Nine Indianapolis doctors, all members of the staff of General Hospital No. 32, have received instructions to report at Camp Bowie, Texas, according to an announcement by Lieutenant Colonel C. J. Clark, unit director and chief of the medical service. Those called are Major Fred Cheney, Major James S. Browning, Major J. Neill Garber, Captain Fred Reynolds, Lieutenant Howard Romack, Lieutenant Jack Carr, Major Paul Fouts, Captain Ebner Blatt, and Captain Richard Benson. These men are to report for preliminary training, so to assist in training the enlisted personnel of the hospital unit in the technic of hospital operation. It has been learned that General Hospital No. 32, sponsored by Indiana University and Commissioned in ceremonies at the Medical Center here in May, will be activated in January. Lieutenant-Colonel Charles F. Thompson assisted Doctor Clark in organizing the unit.

Lieutenant E. L. Fitzsimmons, of Evansville, is now at the Station Hospital, Hobbs Army Air Field, Hobbs, New Mexico. He has been in the A.U.S. since July, 1942, and was among those who volunteered for service.

Commissioned a major in the Army Air Force, Dr. George F. Green, was instructed to report for officers' training at Miami Beach, Florida. Dr. Green has been in practice at South Bend.

Colonel Franklin T. Hallam, formerly of Indianapolis, has been assigned as chief surgeon, VIII Corps, and is stationed at Brownwood, Texas.

Lieutenant-Commander R. L. Hane, of Fort Wayne, is now in service with the Medical Corps of the U.S.N.R. in the Pacific area.

Word has been received of the promotion of Major John L. Hillery, formerly of Silver Lake, to the rank of lieutenant colonel. Colonel Hillery is executive officer of the 65th Medical Regiment.

Lieutenant Bruce A. Work, former Frankfort physician, recently called at the Association office while on a ten-day leave. He is now stationed at Camp Rucker, Alabama, serving in the Medical Battalion.

Thus is the Holiday message received from one who is serving with the armed forced in the Pacific:

The Bugles of Battle will sound the Marches of Peace,
East, West, North and South, the long fight will cease;
Then we'll sing the Song of Great Joy that the Angels began,
We'll sing of Glory to God and of Good Will to Man.

Major James M. Kirtley, formerly of Crawfordsville, is regimental surgeon for an infantry regiment at Camp Gordon, Georgia.

Former Evansville physician, Lieutenant Charles F. Leich, Naval Medical Corps, has been elected to the American College of Surgeons. Lieutenant Leich is stationed at the Naval Air Training Center, Pensacola, Florida.

Dr. Frederick A. Loop, of Lafayette, has reported for duty as a lieutenant in the United States naval hospital at Mare Island, San Francisco, California.

INDIANA PHYSICIAN IN AFRICAN INVASION

Dr. Don M. Mattox, formerly of Terre Haute, now a lieutenant (j.g.) in the United States Navy, has been recommended for the Navy Cross and cited for decorations by both Navy and Army commands as a result of service rendered during the invasion of French Morocco. Dr. Mattox entered the service July sixteenth and was first assigned to duty with the United States Marine Corps at Parris Island, South Carolina. Later he was transferred to the amphibious forces of the Navy, and served with the naval medical units on the African beaches in the vicinity of Casablanca during the invasion which began November seventh.

Major Irving Mishkin, former practicing physician at Elkhart, is now in charge of the x-ray department at the Toledo Induction Center. He has had special training in x-ray at the Walter Reed Hospital, Washington, where he was promoted to major when he finished training.

Lieutenant Commander Charles W. Olcott, who was the first medical officer from Dearborn County to enter the service and who reported for active duty at NCTC, NOB, Norfolk, Virginia, on March 19, 1942, has been transferred to the Main Dispensary, Hospital Area, Camp Peary, Magruder, Virginia.

Dr. John M. Palm, former Brazil physician, has been promoted to a major and has been made chief surgeon of a bomb group now stationed at an Army air base in Georgia.

Former Mount Vernon physician, Frank W. Oliphant, is now a first lieutenant in the Medical Corps, AUS at Clarksburg, West Virginia.

Former Indianapolis physician, Lieutenant Joseph B. Quigley, is in service at the Station Hospital at the Santa Ana Army Air Base in California.

Lieutenant Commander Arthur P. Rhamy, formerly of Wabash, has been appointed as commanding officer of Ellyson Field at Pensacola, Florida.

Captain W. L. Sharp, of Anderson, is stationed at a general army hospital at Danville, Kentucky.

Dr. Lacey L. Shuler, of Indianapolis, has been commissioned a major in the United States Army Medical Corps and was instructed to report for active duty at the Army Medical Center in Washington.

Captain U. F. D. Stork, formerly of Evansville, is now located in the Station Hospital, Camp Shelby, Mississippi.

Dr. Howard A. Stellner, formerly of Pendleton, is serving in a Medical Corps station hospital at Land Wood, Missouri.

Dr. Thomas P. Walsh, of Garrett, has been commissioned a lieutenant in the United States Army and received word to report at Miami Beach, Florida.

Major Don Wolfram, of Indianapolis, is now in the Unit Training Center in the New Orleans Staging Area.

"A flight surgeon is a combination of doctor, lawyer, priest and Dorothy Dix, who must learn the physical, mental, social and economic conditions and evaluate the diversions and dissipations of the pilots, to cancel or O.K. their flights. They make training flights with them for further observation. They are given the work of combat maneuvers, loops, turns, banks, stalls, upside down and almost inside out."

Thus writes M. A. Austin, retiring president of the Indiana State Medical Association in a letter from Fort Myers, Florida, where he spent Thanksgiving with his son, Lieutenant Gene Austin, who is stationed at Page Field.

"Overhead day and night roar big four-motored bombers from Page Field, four to a flight, three following a leader who drags a target a thousand feet behind for the other three to shoot at when they get over the gulf. Each plane has different colored bullets that stain the target when it is hit. The staccato of the guns is heard but faintly; they are up so high. Gene's station has only pursuit and two-motor ships. No hospital facilities here as yet, so serious cases are taken by plane to Maxwell Field Hospital in Montgomery, six hundred miles from here. Gene took two patients there last week, time en route *two hours ten minutes—returned in one hour fifty-eight minutes.*"

News Notes

Dr. Paul W. Sparks, formerly of Winchester, is connected with the Lahey Clinic at Boston, Massachusetts.

Dr. Robert M. Ferguson, formerly of Rising Sun, is now serving as assistant surgeon, U. S. Public Health Service, at Sikeston, Missouri.

Information has reached us to the effect that the name of the Lakeside Hospital, at Kendallville, has been changed to the McCray Memorial Hospital.

Dr. A. J. Bachmann, of Indianapolis, and Miss Bonnie Lou Fite, of Marion, were married in Indianapolis on September twelfth. Dr. Bachmann is a member of the staff at the Methodist Hospital.

A blood plasma depot, established as a war emergency measure, will be set up in Evansville, according to a notification received by Dr. Herman Baker, OCD Chief of Emergency Medical Services in Vanderburgh County.

Dr. Joseph Weber, of Center Point, and Miss Helen Stigler, of Attica, were married on November twenty-sixth. Doctor Weber is a captain in the Medical Corps and is stationed at Camp Atterbury.

At the annual meeting of the American Laryngological Association held last June, Dr. John F. Barnhill, former Indianapolis physician who is now at Miami Beach, Florida, was awarded a bronze honor plaque engraved with some of his medical accomplishments. The plaque is a rare recognition of work done.

A vivid radio drama "Doctors at War" will be presented in coast to coast broadcasts over NBC at 5:00 p.m. (EWT) on Saturdays, for twenty-six weeks, beginning December twenty-sixth. This is sponsored by the American Medical Association and the National Broadcasting Company, in official cooperation with the United States Army (Medical Department), and the United States Navy (Bureau of Medicine and Surgery).

JOSIAH K. LILLY HONORED

The Remington honor medal has been awarded to Josiah K. Lilly, chairman of the Board of Directors of Eli Lilly and Company, by the American Pharmaceutical Association. This award is named in honor of Professor Joseph P. Remington, one of the outstanding pharmacists of his day and the founder of modern American pharmacy. Indiana takes pride in the tribute paid to Mr. Lilly.

Dr. D. Douglas Odell, formerly of Garrett, has moved to Bryan, Ohio, where he will resume his practice.

Dr. Roy R. McCoy has returned to Fort Wayne to resume his practice. He had served as battalion surgeon in the United States Army since last April, but has been reverted to an inactive status of the Medical Reserve Corps because of an injury sustained on maneuvers in the South.

Announcement has been made of the marriage of Dr. Frederic B. Gardner, of Indianapolis, to Miss Eloise Adams, of Indianapolis, on August fifth in Colorado Springs, Colorado. Dr. Gardner is now a lieutenant in the armed forces overseas.

Dr. William M. Dugan, secretary of the Indianapolis (Marion County) Medical Society, has been appointed to the Board of Managers of the Marion County Tuberculosis Hospital, Sunnyside, succeeding Dr. Russell S. Henry.

Immunization against diphtheria, smallpox vaccinations and tuberculin tests have been carried out in several counties during the past month. Some such programs have been sponsored by county medical societies, some by the tuberculosis associations and some by the county departments of health. Through these programs any threat of possible epidemics is averted.

Mrs. Emory W. Cowley, of Indianapolis, has been appointed as Marion County commander of the Women's Field Army for Cancer Control. She succeeds Mrs. Ronald N. Hazen who has resigned in order to take over the educational and clinic details. A poster contest for high school art students will be conducted by the Indiana Association for Cancer Control, opening January fourth and closing January twenty-seventh.

The National Society for the Prevention of Blindness announces that a prize of $250 will be awarded for the most valuable original paper during 1943 adding to the existing knowledge about the diagnosis of early glaucoma. The award will be made by the Society with the guidance of an opthalmological committee. Papers may be presented by any ophthalmologist, student in opththalmology or research worker of the Western Hemisphere. Papers should be in the office of the National Society for the Prevention of Blindness, 1790 Broadway, New York City, by September 15, 1943.

Geo. W. Bowman, M.D., Chief, Bureau of Veneral Disease Control, Indiana State Board of Health, spoke before the Medical Officers at Camp Atterbury, on December 8, 1942, on the subject "Intensive Treatment Methods."

Three medical interns, Thomas VanArsdol, a graduate of Duke University Medical School, and Wallis A. Ross and James F. Halley, both graduates of the University of Arkansas Medical School, have been appointed to the staff of the Indianapolis City Hospital.

INDUSTRIAL HEALTH CONFERENCE

A two-day symposium on Industrial Medicine will be held in Indianapolis in February as a "test program" for the American Medical Association and the Procurement and Assignment Service in their desire to train physicians for industry. Nationally known speakers are engaged, and a complete program will appear in the February issue.

Reports from over the state indicate that civilian defense Emergency Medical Field Units and casualty stations are being set up in readiness for any war emergency. Physicians have been assigned to various medical units, and assistants are selected from among men and women who have taken first-aid and advanced first-aid courses.

The public Health Nursing Association has announced that is ready to provide part-time nursing service to industry, on a full-pay cost basis an hour. The plan, board members said, has been approved by the Marion County Medical Society, Public Health Nursing Association's medical advisory and general advisory committees and the Industrial Hygiene Division of the State Department of Health. Miss Lucille Wall will supervise the program.

UROLOGY AWARD

The American Urological Association offers an annual award "not to exceed $500" for an essay (or essays) on the result of some specific clinical or laboratory research in Urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years.

The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, May 31-June 3, 1943, Hotel Jefferson, St. Louis, Missouri.

Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before March 1, 1943.

Dr. William C. Landis, formerly of Elkhart, has moved to Syracuse where he will open his office.

AMERICAN COLLEGE OF PHYSICIANS CANCELS 1943 MEETING

The Board of Regents of the American College of Physicians has announced the cancellation of their 1943 Annual Session, which was scheduled to be held in Philadelphia, April 13-16, 1943. This action was taken after thoughtful consideration of all factors involved, including an intimation from the Secretary of War and the Office of Transportation that larger national medical groups should not plan meetings at the time set; a growing difficulty in getting speakers and clinicians of top rank to maintain the usual standards of the program; prospect of greatly reduced attendance, because civilian physicians are already faced with too great a burden of teaching and practice; a decreasing active membership, due to approximately 25 per cent of all physicians being called to active military service. President James E. Paullin announced, however, that all other activities of the College would be pursued with even greater zeal, and that the College would especially promote regional meetings over the country and organize post-graduate seminars in the various military hospitals for physicians in the armed forces.

CANCER CONTROL ASSOCIATION SPONSORS FIRST ANNUAL HIGH SCHOOL POSTER CONTEST

The Women's Field Army for Cancer Control is offering $125 in cash prizes to high school students for the best posters on the subject of cancer control.

The state has been divided into five sections. Prizes of $10, $5, $3, $2 and Honorable Mention will be awarded in each district.

These winning posters will compete for fifteen and ten dollar state prizes during an exhibit to be held at L. S. Ayres and Company, Indianapolis. The Ayres Exhibit will be held February eighth inclusive of the twentieth. In addition to the winning posters, the sectional judges have been authorized to select the fifteen best posters from each section, to be included in the state exhibition. After February twentieth these posters will be exhibited throughout the state.

A small booklet, "Youth Looks at Cancer," will be presented to each of the high schools in the state, both public and parochial. This is the most far-reaching educational project ever sponsored by the Women's Field Army of Indiana. Publicity will be sent regularly to all of the newspapers of the state beginning January first. The members of the Indiana State Medical Association can give invaluable aid to the Women's Field Army if they will encourage every high school in their district or county to take part in this contest. Secondly, they can help by urging the editors of the state to use our material.

Remember that Cancer Control is where Tuberculosis was thirty years ago!

The American Urological Association has passed a resolution asking for a closer cooperation between the medical profession of North America and South America, according to a letter received from Thomas D. Moore, M.D., secretary to the Association:

"WHEREAS, The close association of the physicians of the Western Hemisphere for the purpose of facilitating the interchange of scientific knowledge would afford one basis for mutual understanding and good will . . . . THEREFORE, be it resolved that all the educational institutions of the United States which prepare students for the study of medicine teach a minimum of two years of Spanish and/or Portuguese . . . ."

WAR SURGERY MEETING

At a time of national emergency, such as we now face, intellectual forces aptly adapt themselves to circumstances under which they must advance. Therefore, to fill the need for inspiration and information with regard to the war medical problem, two great medical societies, the American Academy of Orthopedic Surgeons and the Clinical Orthopedic Society, have combined their annual meeting to meet this challenge. This joint meeting will be held on January 17, 18, 19, and 20, 1943, at the Palmer House in Chicago. The keynote of this occasion will be "War Surgery" and the application to civil practice. Those members of the medical profession in good standing, who are interested in bone and joint surgery and its allied fields, may have the privilege of attending.

There will be four sections of interest connected with this program:

1. A clinical program.
2. A general scientific assembly.
3. An instructional section.
   (a) Group discussion courses.
   (b) Motion pictures of surgical methods and technique.
4. Scientific exhibits.

The speakers and faculty are drawn from the leading surgical authorities of this country, as well as distinguished guests from England, Canada, South America and the Hawaiian Islands. These will include a sizable group of Army and Navy surgeons who have had to deal directly with the war casualties from across both oceans.

Thorough, concise, short discussion courses will be offered on the following subjects. Each will have an outstanding faculty, many of whom are in military service.

I. Surgery of the Hand.
II. Fractures
III. Peripheral Nerve Injuries.
IV. Amputations.
V. Lame Backs.
VI. Surgery of the Hip.
VII. Surgery of the Knee.
VIII. Foot Disabilities.
IX. Differential Diagnosis of Bone Pathology.
X. Reconstructive Surgery Following Trauma of the Upper Extremity.
XI. Surgical Anatomy.

There will be several special features in connection with the general program.

A. An afternoon devoted to "Complicating Trauma Associated with Orthopedic Casualties." This will include a discussion of the following subjects.

1. "Shock—Its Early Recognition and Treatment."
2. "Blast, Crush and Compression Injuries."
3. "Thoracic Injuries."
4. "Head and Spine Injuries."
5. "Gunshot Injuries to Abdomen."
6. "Injuries to Genito-Urinary Tract."

B. One evening will be devoted to the subject of "Chemotherapy in the Treatment of Wounds," with eminent authorities who have studied the subject from various angles.

C. Another evening will be given to a debate on "The Kenny Treatment for Anterior Poliomyelitis."

There will be no time for play. Morning, afternoon and evening will be devoted entirely to the problems as they have been outlined. As has been stated previously, members of the medical profession who are interested in such a program are welcome to attend, and may receive an invitation by writing to the secretary, Dr. Myron O. Henry, 401 Medical Arts Building, Minneapolis, Minnesota. If you expect to attend, hotel and railroad reservations should be made early.

ABSTRACT: SAY FRACTURES OF FOREARM OF CHILDREN ARE DIFFERENT FROM THOSE OF ADULTS

"Fractures of the forearm in children are different from those in adults and should be differently treated," Walter P. Blount, M.D.; Arthur A. Schaefer, M.D., and J. Howard Johnson, M.D., Milwaukee, declare in the September 12 issue of *The Journal of the American Medical Association*.

They explain that such fractures "must not be considered along with fractures of adults under anatomic classifications which take no account of the growth factor. They are different as to pathologic conditions, treatment and prognosis. Intelligent management must recognize this fact. . . ."

The three physicians say that "there is a definite hazard associated with open reduction of fractures of the forearm in children.

"Except at the elbow, open reduction of forearm fractures is difficult to justify in children.

"Greenstick fractures of the middle third should be reduced by completing the fracture in the interest of maintaining alignment. . . ."

Greenstick fractures are common in children and rarely occur in adults.

Deaths

Dr. Eastman

Joseph Rilus Eastman, M.D., retired Indianapolis physician and surgeon, aged seventy, died at his home on November twenty-ninth following a long illness.

Dr. Eastman was born in Brownsburg, Indiana, April 18, 1872, the son of Dr. Joseph and Mary (Barker) Eastman. He received his premedical education in the Indianapolis public schools, Butler Preparatory School, and Wabash College, and graduated from the Central College of Physicians and Surgeons, which his father helped to found, in 1894. In his study of surgery he visited the principal universities of America and Europe and in 1897 was graduated, *magna cum laude*, from the University of Berlin.

Prior to United States entering into World War I, he was appointed chief of the American Red Cross Hospital in Vienna, Austria, and was awarded the Austrian Red Cross decoration for his work there. Later he served as a major in the Medical Corps of the United States Army, and as a member of the Council of National Defense.

Dr Eastman contributed many articles to American and foreign publications; did original work in pathology, receiving a diploma of honor at Minneapolis, in 1913, for an exhibit in surgical pathology, and he also devised many surgical procedures and instruments.

Dr. Eastman was a founder and governor of the American College of Surgeons, a member of the American Surgical Association, a member and past president of the Western Surgical Association, a member of the Executive Committee of the American Urological Association, a member of the Société Internationale de Chirurgie, a member and past president of the Indianapolis Medical Society, a member and past president of the Indiana State Medical Association, and a Fellow of the American Medical Association. For many years he was the owner and director of the Joseph Eastman Hospital in Indianapolis, a hospital originally established by his father. For thirteen years he served as a delegate to the annual convention of the American Medical Association. He was professor emeritus of the Indiana University School of Medicine.

* * *

Frank W. Cregor, M.D., Indianapolis dermatologist and head of the Dermatological Department of the Indiana University Medical Center until about a year ago, died at his home on December ninth, following a year's illness.

Dr. Cregor was born near New Castle on July 13, 1873, and was sixty-nine years of age. He graduated from the Medical College of Indiana, Indianapolis, in 1894. He practiced medicine at Carthage and Greenfield until 1911-1912, when he studied dermatology at the University of Vienna, Austria. He began his practice in Indianapolis in 1912.

In 1932 Dr. Cregor was appointed to the Indiana State Board of Health, and in 1927 he served as

Dr. Cregor

president of the Indiana State Medical Association. During the 1901 and 1903 legislatures he was a member of the Indiana Senate, and he also served on the American Medical Association's Judicial Council ten years. He was a member of the American Board of Dermatology and Syphilology and the American Dermatological Association.

Dr. Cregor was a member of the Indianapolis (Marion County) Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Charles Arburn, M.D., of Wadesville, died on November twenty-seventh, at the age of eighty-four. He graduated from the Kentucky School of Medicine, Louisville, in 1889. Doctor Arburn was a member of the Posey County Medical Society, an honorary member of the Indiana State Medical Association, and a member of the American Medical Association.

* * *

Daniel E. Barnett, M.D., of Homer, died at his home on November eighteenth, at the age of sixty-seven. He graduated from the University of Michigan Medical School, Ann Arbor, in 1905.

* * *

Robert Dwyer, M.D., of Indianapolis, died November eleventh. He was sixty-four years of age. Doctor Dwyer died while performing an operation. He graduated from the Indiana University School of Medicine, Indianapolis, in 1908. He was a member of the Indianapolis (Marion County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Clifford R. Hoy, M.D., of Syracuse, died November seventh, at the age of fifty-four. He was a graduate of the Indiana University School of Medicine, Indianapolis, in 1913. Doctor Hoy was a captain in the United States Army during World War I and served overseas with Evacuation Field Hospital No. 9. He was a member of the Kosciusko County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Henry C. Knapp, M.D., of Huntingburg, died on December fourth. He was seventy-five years of age. He graduated from the Indiana Medical College, School of Medicine of Purdue University, Indianapolis, in 1906. Doctor Knapp had done post-graduate work in Vienna, Austria, and specialized in ophthalmology and otolaryngology. He was a member of the Dubois County Medical Society, an honorary member of the Indiana State Medical Association, and a Fellow of the American Medical Association.

Dr. Mettel

Howard B. Mettel, M.D., former chief of the Bureau of Maternal and Child-Health, Indiana State Board of Health, and acting director of the Division of Services for Crippled Children of the Indiana State Department of Public Welfare, died in St. Louis on November thirtieth. He had been in the administrative service of the American Red Cross, as director of the Medical and Health Services of the mid-western area, since October first, the area covering eighteen states. He also was a volunteer instructor in the Children's Hospital at Washington University, in St. Louis, where he was a staff member before coming to Indianapolis.

Dr. Mettel graduated from the University of Michigan Medical School, Ann Arbor, in 1921, and had limited his practice to pediatrics.

He was a member of the American Board of Pediatrics and the American Academy of Pediatrics, and had been assistant professor of pediatrics at the Indiana University Medical Center. He was a member of the Indianapolis (Marion County) Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Ed N. Loy, M.D., of Rensselaer, died November fourteenth, at the age of seventy. He graduated from the Chicago Homeopathic Medical College in 1898.

* * *

Benson Ruddell, M.D., of Frankfort, died on November twenty-fourth. He was sixty-six years of age. He graduated from the Medical College of Indiana, Indianapolis, in 1900. Doctor Ruddell was a member of the Clinton County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

John H. Wrork, M.D., practicing physician of Shelburn for the past thirty-eight years, died December first, at the age of seventy-two. He was a graduate of the Illinois Medical College, Chicago, in 1904. He was president of the Sullivan County Medical Society, was a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

November 1, 1942.

Roll call showed the following present: C. A. Nafe, M.D., chairman; E. O. Asher, M.D.; M. A. Austin, M.D.; C. H. McCaskey, M.D.; J. T. Oliphant, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

The statements of receipts and expenditures for August and September for the association committees were approved.

Membership Report

Number of members Oct. 31, 1942.....3236 (110 hon. mems.)
Number of members Oct. 31, 1941.....3212 (198 in service)
Gain over last year..... 24
Number of members Dec. 31, 1941.....3228

1942 Annual Session at French Lick

Actions taken by the House of Delegates and the Council:

a. Rejection of maternal and pediatric care for families of enlisted Army personnel.
b. Resolution recommending the "1943 session of the Indiana General Assembly enact legislation making it a penitentiary offense for any person wilfully to make any false statement for the purpose of obtaining a license to drive a motor vehicle" adopted.
c. Resolution concerning contraception information turned down.
d. Resolution of the Anti-Tuberculosis Committee adopted.
e. Resolution concerning immunization adopted.
f. Annual registration of physicians rejected.
g. Resolution requiring applicant for a license in Indiana to have "full citizenship in the United States" adopted.
h. Section 7, Chapter X, of the By-Laws amended.
i. Committee on Aid to Needy Physicians and Pneumonia Committee discharged.

The committee approved the expenditure of $31.50 for war stamps, to be given as golf tournament prizes.

1943 Annual Session at Indianapolis

Dates set, September 28, 29 and 30, 1943, upon the motion of Dr. McCaskey, seconded by Dr. Asher. The meeting will be held at the Claypool Hotel.

Thursday morning scientific meeting. The committee suggested that the three members of the Scientific Work Committee be invited to attend the next meeting of the Executive Committee to discuss what should be done in regard to the Thursday morning scientific session at next year's meeting.

Legislative, Legal and Social Security Matters

National

Copy of A.M.A. Federal Legislative Bulletin No. 20 distributed to members of the committee.

Discussion held in regard to the Lanham Act which provides $140,000,000.00 for local emergency facilities. None of these funds is to be spent for personal services.

No further action reported in regard to the Tolan Bill, H. R. 1052, permitting chiropractors to treat injured federal employes.

Mingo County (W.Va.) Medical Society vs. Dr. Simon, Opinion of Court, referred to Mr. Stump, attorney for the association, who is to make a report upon this at the next meeting of the committee.

Local

Definitions in regard to practitioners of healing, prepared by Albert Stump, brought to the attention of the committee. It was thought that perhaps this might be discussed with some commercial company, such as Mead Johnson, to see if they would be interested in publicizing these definitions.

Article in regard to when a doctor is to pronounce a patient dead is to be prepared for THE JOURNAL. It was recommended that this question be clarified with the coroners through the head of the state coroners' organization.

Organization Matters

Annual Secretaries' Conference will be held January 24, 1943.

Midwinter meeting of the Council will be held January 10, 1943.

Invitation received from Indiana Committee for Victory for the state association to form a subcommittee. Although the committee appreciated deeply the invitation, it felt that no officer of the state association should be a member of the committee as such. This is following the general policy and precedent of long standing.

Report on American Public Health Association meeting at St. Louis, October 25 to 29, 1943, made by the secretary. The two outstanding developments at this meeting were the discussion of the Lanham Act and the talk made by Robert Taft of

the War Manpower Commission. Mr. Taft said that some way the Army must arrange to get along with a quota of physicians less than 6.5 per thousand while the troops are in this country, although this quota is needed for troops in the field.

State Board of Health

Dr. Thurman Rice spoke of the pre-military examination program for the eighteen- and nineteen-year-old high school students. The committee recommended that a uniform examination card be prepared by the State Board of Health and approved the program in principle, stating that the details should be formulated by the school superintendents with the school physicians.

Medical Economics

Report completed of those counties in Indiana which have had agreements with the Farm Security Administration and forwarded to Mr. A. M. Simons of the American Medical Association.

Question placed before the committee as to whether it is ethical for the wife of a physician who is in service to publish a newspaper notice concerning the collection of bills. The committee stated that it could see nothing wrong in such a notice if it were carefully and correctly worded.

Medical Relief

WPA report for September brought to the attention of the committee. As the WPA is rapidly growing smaller, these reports, of course, are becoming shorter each month.

War Medicine

The Executive Committee approved the suggestion from Dr. McCaskey that he write a letter to each Marion county physician who is in service, asking the men in active service in regard to the type of medical work they are doing. Of course, it goes without saying that none of the information requested would in any way reveal any military secrets.

Report made upon the Procurement and Assignment Service situation at the present time.

Report made that in several cases physicians have been allowed to enlist in the Army without being cleared through the State Procurement and Assignment Service. This was to be taken up with the State Procurement and Assignment Service chairman, who is to be asked to forward it to the national Procurement and Assignment Service.

Industrial health. The Industrial Health Committee held a meeting preliminary to the Executive Comittee meeting and made its report to the Executive Commitee. The following resolutions were passed by the Industrial Health Committee, presented to the Executive Committee, and approved by the committee:

a. The committee recommends a two-day postgraduate course in industrial medicine, to be worked out in cooperation with the Indiana University School of Medicine, the Bureau of Industrial Hygiene of the State Board of Health, and the Committee on Industrial Health of the Indiana State Medical Association.

b. The committee recommends that physicians who have been cleared by the State Procurement and Assignment Committee for full-time work in essential industries may be referred to the Director of the Bureau of Industrial Hygiene of the State Board of Health for needed training, and that a committee representing the Indiana State Medical Association work out a definite teaching program in cooperation with the Bureau of Industrial Hygiene.

c. The committee recommends that the State Chamber of Commerce be requested to survey the need for full-time physicians in Indiana's essential war industries.

The committee discussed war boom town communities and also approved the preparation of an industrial health educational program, which is to be presented at the meeting of the Industrial Health Committee of the Procurement and Assignment Service to be held at Washington on November 4, 1942.

Creation of military morale section of Surgeon General's Office. The Executive Committee once again approved the suggestion which had been made that a military morale section be created in the Surgeon General's office and instructed the secretary to forward this suggestion to the War Participation Committee of the American Medical Association. This is one of the recommendations made by the Executive Committee to the House of Delegates of the Indiana State Medical Association and approved by the House of Delegates:

> "A feeling of understanding and close cooperation between medical organization and the individual physician who is now in service should be fostered and maintained. Perhaps a 'morale section' which could function under the direction of the Surgeon General's Office and the American Medical Association, headed by an officer who could contact individual physicians and have authority to make reports on conditions and 'trouble shoot' would be effective."

Gas rationing. Information received from states where gas rationing is already in effect in regard to the methods used in rationing gasoline to physicians. This information has been turned over to James D. Strickland, state director of the Office of Price Administration, and to the Marion County Rationing Committee, who have worked out a system of registering physicians for their gas ration books after conferring with the officers of the Marion County Medical Society. The same methods used in Marion County are to be proposed for other counties in the state.

Question brought before the committee as to why the Navy must use doctors from civilian life, who are busy, and pay them nothing when there are doctors in the Fort Harrison pool who are doing nothing while waiting to be called and who would welcome an opportunity to do some medical work. Why can't these examinations for the Navy be done by these Army doctors? The Executive Committee felt that this was a question which should be put up to the Procurement and Assignment Service.

Letters received from two Indiana men in the Army who have been placed on active duty although, because of age, one feels that he should be used as originally promised in a base installation and the other feels he should have limited service. The committee felt that these letters should be taken up with the proper officials in the Surgeon General's office.

Request made by a commercial company that lists of physicians in service be supplied to it regularly. The committee felt that special lists could not be made in answer to such a request, but it felt that lists, when they are published from time to time, should be made available to reputable commercial firms.

Group Hospitalization and Medical Service Plans

Letter sent to a physician who asked for information in regard to the stand of the American Medical Association concerning compulsory health insurance. The letter contained the information that the American Medical Association had taken the following action in regard to such plans at the 1920 meeting of the House of Delegates:

> "Resolved, That the American Medical Association declares its opposition to the institution of any plan embodying the system of compulsory contributing insurance against illness, or any other plan of compulsory insurance which provides for medical services to be rendered contributors or their dependents, provided, controlled, or regulated by any state or the Federal government."

State Board of Medical Registration and Examination and Cult Study Committee

Report made upon the Koch cancer cure federal trial.

Future Meetings

Indiana State Conference of Social Workers, November 4 and 5. Dr. Asher to appear on program.

A.M.A. Secretaries' Conference, Chicago, November 20 and 21.

College of Surgeons meeting at Cleveland, November 17 to 20, cancelled.

There being no further business, the meeting was adjourned.

COUNTY SOCIETIES

COUNTY MEDICAL SOCIETY OFFICERS

CLINTON COUNTY MEDICAL SOCIETY:
President, John A. Van Kirk, Frankfort
Vice-president, John S. Ketcham, Rossville
Secretary-treasurer, A. G. Chittick, Frankfort

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(Continued on page xxi)

(Continued from page 54)

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LOCAL SOCIETY REPORTS

Adams County Medical Society members held a meeting at the Rice Hotel, at Decatur, on November twenty-fourth.

* * *

Clinton County Medical Society members met at the Coulter Hotel, at Frankfort, on December first. Officers were elected for 1943. A general discussion was held concerning the examination of Junior and Senior high school students for the Physical Fitness Program. Eleven members attended the meeting.

* * *

Dearborn-Ohio County Medical Society members met at the New Reagan Hotel, at Lawrenceburg, on November nineteenth. Doctor Richard S. Tyler, of Cincinnati, Ohio, spoke on "Treatment of Congestive Heart Failure." Eight members were in attendance at this meeting.

* * *

Elkhart County Medical Society members held their annual Christmas banquet at Hotel Elkhart, Elkhart, on December third. An election of officers for 1943 was held.

* * *

Indianapolis (Marion County) Medical Society members held a joint meeting with the Seventh District Medical Society at the Plainfield High School, Plainfield, on November third.

At a meeting held November tenth at the Indianapolis Athletic Club, the following subjects were discussed: "The Dartmouth Eye Clinic," by Doctor Walter Kelly; "Surgical Indications in Ulcerative Colitis," by Doctor J. K. Berman; and "The Lumbo-Sacral Syndrome," by Doctor Gordon Batman.

On November seventeenth, a Symposium on Hypertension was presented by the Lilly Clinic.

At a meeting held November twenty-fourth, Doctor B. R. Kirklin, of the Mayo Clinic, Rochester, Minnesota, spoke on "Bleeding Lesions of the Gastro-intestinal Tract."

On December first the Indianapolis Medical Society held their annual business meeting with election of officers.

At a meeting held on December eighth, at the

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Indianapolis Athletic Club, the program consisted of case reports: "Sarcoma of the Floor of the Mouth," by Doctor David Brown; "Congenital Heart Lesions," by Doctor W. L. Dorman; "Richter's Hernia Complicating Bowel Obstruction," by Doctor K. M. Koons; and "Cerebellar Tumor," by Doctor R. L. Glass.

* * *

Knox County Medical Society members held a dinner meeting at the Jewel Cafe, at Vincennes, on November seventeenth. The medical staff of George Field furnished the program. Eleven members attended the meeting.

* * *

Lake County Medical Society members met at St. Margaret's Hospital, at Hammond, on November twelfth. Doctor Henry Ricketts, professor of medicine at the University of Chicago, was the guest speaker; his subject was "Aviation Medicine." Mr. Adrian Wychgel, senior administrative officer, Fifth Corps Civilian Defense Area, made a short talk on Lake County's civilian defense set-up for emergency medical relief.

* * *

Noble County Medical Society members held their December meeting at Koons' Restaurant, at Ligonier, on the seventh. Mr. Ward, county superintendent of schools, was the speaker of the evening. Fourteen members were in attendance.

WOMAN'S AUXILIARY to the Indiana State Medical Association

President—Mrs. Arnold H. Duemling, Fort Wayne
President-elect—Mrs. James W. Baxter, Jr., New Albany
Corresponding Secretary—Mrs. E. M. VanBuskirk, Fort Wayne
Treasurer—Mrs. C. E. Monk, Kendallville

The board meeting of the Woman's Auxiliary to the Indiana State Medical Association was held on December 1, 1942, at the Columbia Club at 11:00 A. M. Mrs. A. H. Duemling presided.

Dr. Norman Beatty gave a very interesting talk concerning problems facing the medical profession today. Dr. Beatty said that this coming legislative session will to us be a very important one. He stated that it is best to make personal contact with legislators in your own community, to acquaint them better with our problems. Some of the most potent things the auxiliary members can and must do are:

1. Keep yourself constantly aware of developments in your community and take an active part, particularly where they concern the medical profession.

2. Get as many members of the auxiliary as possible on important county committees which pertain to health.

3. Preserve in some fashion some of the systems that we already have, so that the men in the armed forces will have something to come back to.

4. Write to the Indiana State Medical Association for a legislative bulletin giving information on all Indiana legislators and how they stand on certain bills which will come up at the next session.

The Legislative Committee is interested in having the following resolutions considered:

1. That something should be done regarding the issuance of drivers' licenses, so that people who are physically incapable will not be allowed to drive.

2. That the law requiring that school employees be tested for tuberculosis be enforced.

3. That there should be a law requiring immunization against smallpox, diphtheria, and typhoid prior to entrance in school.

4. That there should be a law requiring immunization for smallpox and typhoid for all defense workers.

Mrs. Duemling gave a report, advising us again to concern ourselves with the health of families in the communities. We should keep in mind the aims and ideals of the auxiliary. She reminded us that *Hygeia* clipping service is at our disposal. The national meeting of the medical auxiliary will be held in Chicago at the Drake Hotel on June 7, 8 and 9. It is urged that all members attend this meeting.

Mr. Thomas A. Hendricks, executive secretary of the Indiana State Medical Association, discussed some of the important legislation before Congress during the coming session. He suggested that we read the *Journal of the American Medical Association*, which was published November 21, 1942, pages 927-67.

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Contents

ORIGINAL ARTICLES

Treatment of the Wound in Compound Fractures. R. Arnold Griswold, M.D., Louisville, Kentucky 55
The Diagnosis of Chronic Brucellosis. Dan L. Urschel, M.D., Mentone 59
The Electrocardiographic Diagnosis and Treatment in Recent Coronary Occlusion. Harvey N. Middleton, M.D., Indianapolis 64
Toxic Reactions to the Sulfonamides. John L. Ferry, M.D., Whiting 69
Adaptability of Various Anesthetic Agents to Certain Types of Operations. Clairmont W. Siekerman, M.D., Indianapolis 72
Changing Concepts of Tuberculosis. Edward W. Custer, M.D., South Bend 75

EDITORIALS

The Supreme Court Decision 78
George W. Crile 78
Your Council 78
Wartime Industrial Medicine 79
Typhus Authority is Guest of the Medical Center 79
Dislocations in Wartime 80
Your Investments 81
Wartime Philosophy of Youth 81
Editorial Notes 82

SPECIAL ARTICLES

President's Page 85
Frank W. Cregor Memorial 86
Epidemic Keratoconjunctivitis. Louis W. Spolyar, M.D., Indianapolis 88
Medicine Today 89
Indiana's Industrial Health Conference 90
Indiana's Emergency Educational Program in Industrial Health 92
Representative Richards Serves Public Well 95
Federal Income Tax Returns. Will H. Smith, United States Collector of Internal Revenue, District of Indiana, Indianapolis 96
Voice of Medicine 98
Under the Capitol Dome 98
What Went on During World War I 100

MISCELLANEOUS

Deaths 99
Military News 101
News Notes 105
Indiana University News Notes 107

Societies and Institutions:

Indiana State Medical Association: The Council 109
Local Societies—Officers 121
Local Societies—Meetings 122
Books xix
Indiana State Board of Health—Bureau of Communicable Diseases xxi

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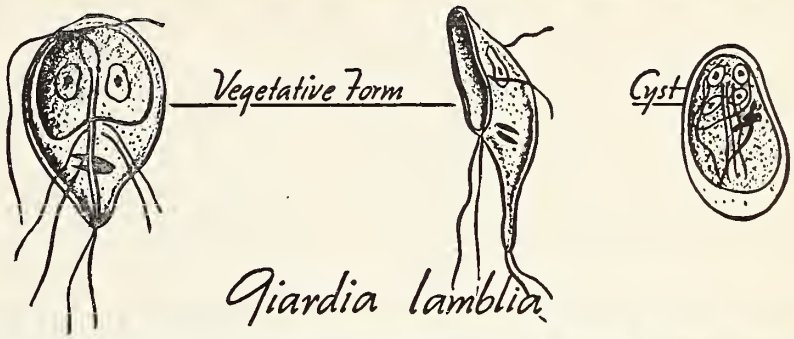

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3			
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5			
6	F. E. Hagie, Richmond	J. E. Ferrell, Fortville	Shelbyville, May 20, 1943
7	Robert H. Egbert, Martinsville	L. H. Kornafel, Indianapolis	Martinsville
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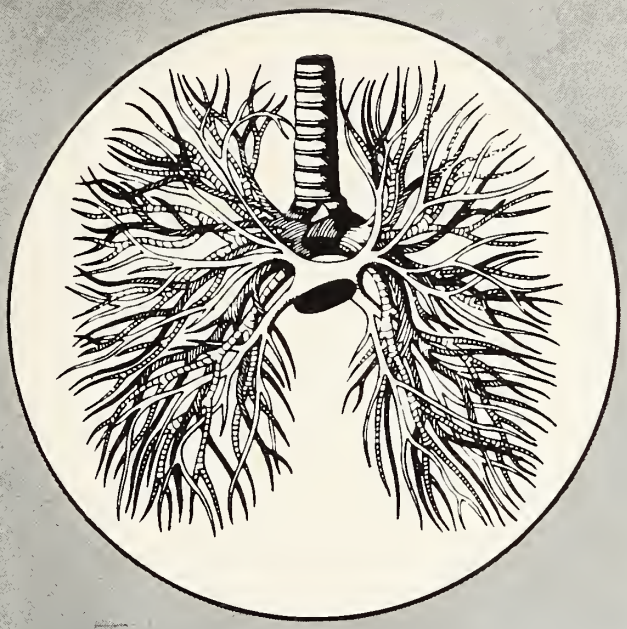

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R. ARNOLD GRISWOLD, M.D.*

LOUISVILLE, KENTUCKY

The oldest form of surgery is probably the treatment of traumatic wounds, and the great figures of ancient surgery were those who followed the armies, studied such wounds and took care of the consequences of warfare. With the advent of industrial and transportation machinery in the last century, the traumatic wound began to occupy a more prominent place in civil practice. This is particularly true during the past twenty years of mechanical development.

A compound wound and the principles of its treatment are the same regardless of whether that wound is inflicted by a stone ax, an arrow, a shell fragment or a Ford V-8. The object of treatment of the wound in a compound fracture is to obtain healing with the minimum of infection and the minimum destruction of soft tissues. The goal should be primary healing, such as we obtain in herniorrhaphy wounds. To obtain this end we must have an absence of clinical infection and a minimum of inflammatory reaction. Inflammatory reaction is caused by (1) bacterial infection, (2) foreign bodies, and (3) dead tissue, including blood clot. As stated by Reid,[1] "Clinical infection in a wound is by no means a matter of the presence of bacterial organisms." Proper conditions for their growth must be present. They must have food and protection from the bactericidal processes of the body. This food and protection is best provided by dead tissue and foreign bodies. A fresh wound in which there is a minimum of dead tissue and foreign bodies will heal primarily even in the presence of a reasonable number of organisms.

The principles of treatment must aim (1) to remove or render innocuous the bacteria present in the wound without causing additional injury; (2) to remove the foreign bodies and dead tissues which provide food and protection for the bacteria; and (3) to provide rest and protection from tension, trauma and reinfection in order that the natural repair processes in the wound may not be hindered. The details of the treatment are altered not so much by the causative factor as by the amount of soft tissue damage, particularly as concerns blood supply, the amount of contamination and the time factor before treatment is initiated. Three stages may be recognized which modify treatment. The first stage, that of contamination, is present for a few hours, when the contaminating organisms remain on the surfaces of the wound and may be removed along with the devitalized tissue. This stage is succeeded by the stage of invasion, when the bacteria have multiplied and some of them have invaded the tissues beyond the easy reach of the scalpel. An arbitrary time limit of six or eight hours is often set as the dividing line between contamination and invasion, and works out quite well as a clinical rule-of-thumb. It should, however, be modified by other factors, such as the degree of contamination, the amount of devitalized soft tissue present, and the first aid treatment applied. Obviously, a crushing wound sustained in a barnyard and exposed to additional trauma and contamination during transport is a more fertile field for early sepsis than a less violent injury sustained under cleaner circumstances and properly protected from the time of injury. The age, vascular system and general condition of the patient, particularly as regards the blood supply of the damaged limb, also modify the extent and rapidity of bacterial invasion and the capacity to resist infection.

The third stage, that of infection, is manifested by the usual signs of inflammatory reaction, such as edema, redness, induration, exudation and local and general fever. Recognition and appreciation of these stages are necessary for proper application of the principles of treatment.

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[1] Reid, M. R.: *Ann. of Surg.* **105** : 982, 1937.

Sumner Koch,[2] in a recent editorial in *Surgery, Gynecology and Obstetrics*, says, "In recent years we have often heard the terms, 'industrial surgery,' 'traumatic surgery,' 'office surgery,' etc., and have not heard often enough the term, 'good surgery.' There is only one type of surgery that deserves emphasis—the good surgery that the injured patient requires no matter where or how he may have been injured. There must be one best method of treating a compound injury, and that method cannot be learned in short 'refresher courses,' but only from teaching and demonstration in medical school, from first hand observation and practice in hospital internship and residency, and, finally, from persistent and conscientious application of sound surgical principles in daily practice.

"War does drive home some simple lessons and basic principles that are too often neglected in medical school and hospital because of the lure of more appealing tasks. There is no new magic in petrolatum and plaster, but there is magic in undisturbed rest and freedom from exposure to the constant reinfection too often introduced into open wounds by careless fingers and droplets from uncovered mouths and noses. There is no new magic in hasty excision of devitalized wound edges and immediate closure of an open wound, perhaps after filling it with sulfanilamide crystals. There may be some magic in laying sulfanilamide crystals under the occluding dressing of an open wound that cannot be surgically treated immediately after injury, so as to produce temporary bacteriostasis, but the real magic lies in transforming contaminated wounds into clean surgical wounds in the simplest possible way and without mechanical or chemical trauma of the living tissue upon which healing depends."

The importance of such wounds is likely to be overlooked because of more interesting and complicated elective surgical procedures. All of you who have contact with medical students or interns know how much more easily they can become enthusiastic about details of technic of gastric resection than in the proper treatment of a compound fracture, and frequently such patients are turned over to the junior personnel whom no one would trust with an elective herniorrhaphy.

Prophylaxis of infection should be started immediately after injury, and covering the wound with a sterile dressing is a most important part of first aid treatment. Meddlesome attempts at hemostasis under non-sterile conditions are to be avoided. A sterile pressure-dressing will control most hemorrhages. Immediate splinting is just as important for the soft parts as for the fracture, and large lacerations, even though no bone is involved, may be splinted to advantage. All of you have seen x-rays which showed air within the tissues at a distance from the wound. This air is admitted by motion during transportation. Not only movement from external sources, but the patient's own muscle contractions may pump air along tissue planes for quite a distance. Contamination from the outside may be carried in the same way by movement. Excess motion at the fracture site also, of course, increases the soft tissue damage and may destroy circulation.

A compound wound is just as urgent an emergency as a perforated peptic ulcer or a strangulated hernia and should have early surgical treatment with a minimum of excess motion. This means that, if possible, in the hospital the patient should not be moved from the first stretcher upon which he is placed until he is put on the operating table. On occasions we even carry out our surgical treatment with the patient on a police stretcher placed on top of the operating table. All examinations, both x-ray and clinical, and any necessary treatment for shock may be carried out just as well on a stretcher as in bed. Few of us realize that each time a shocked patient is lifted from one conveyance to another, an appreciable drop in blood pressure occurs. Yet one sees, even in the best hospitals, patients moved from stretcher to bed, back again to a stretcher, then to an x-ray table, again to a stretcher and finally to an operating table. Often the shocked condition of the patient may appear to contraindicate early surgical treatment. However, with modern methods of handling shock, which are now available in most large hospitals, and the fact that plasma banks are entirely practical for even small hospitals, the treatment of shock and the treatment of the compound wound may usually be carried out simultaneously.

Proper debridement of a compound wound is just as much of a major surgical procedure as is a cholecystectomy or a thyroidectomy and should be carried out with the same ritual and meticulous attention to detail. Too often it is considered that, since the wound is already contaminated, it does not need protection from further contamination. This is not true, and there is no more excuse for breathing droplets of sputum into a compound fracture than into any elective operative wound. For this reason, the original occlusive dressing should not be removed for inspection of the wound until the patient is in the operating room and all personnel are capped and masked. If possible, regional anesthesia is to be preferred, since it minimizes shock and, what is even more important, removes the need for hurry which many surgeons feel is necessary under a general anesthetic. If the patient is under regional anesthesia, is being kept warm and dry, and is having shock treated by appropriate measures, he may be maintained in just as good condition on the operating table as if he were in bed. The first aid splint should not be removed nor the wound inspected until anesthesia has been obtained. In many cases the question of primary amputation comes up at this time. Our opinion is that primary amputation should not be carried out unless there is complete

[2] Koch, Sumner L.: *Surg. Gyn. & Obstet.* **72** : 672, 1941.

absence of circulation distal to the injury. It is surprising how many severely mangled extremities can be saved by appropriate treatment, and if the patient is watched carefully the first few postoperative hours, secondary amputation may be carried out just as safely.

Our reluctance to perform primary amputation of badly damaged extremities has, perhaps, contributed to the necessity for several secondary amputations, due to poor circulation or to gas infection, but has saved a much larger number of limbs. After the surgeon has carefully inspected the x-rays and the wound and has mapped out his proposed line of treatment, the limb is placed in the position in which it is to be treated following operation. This allows reduction of the fracture in proper position and prevents postoperative movement of the bones and soft tissue. It is our custom in fractures of the tibia and fibula, for instance, to insert pins above and below the fracture and to place the extremity in a traction machine, which allows skeletal manipulation and fixation of the extremity and provides subsequent rest and immobilization. The field of operation is now prepared, and this preparation should extend in all directions from the wound, as far as practical. Shaving of the surrounding skin is carried out with a sterile razor, either with or without soap, taking care that no contaminating fluid or other material from the skin is allowed to enter the wound. The skin is thoroughly scrubbed with repeated changes of soap sponges, and excess soap is removed with sterile water. This preparation must be as thorough and as time-consuming as the preparation of the surgeon's hands. If one is addicted to antiseptics, he may now apply any good one to the skin but not into the wound. Gown and gloves are changed and the field is draped for surgery. The operation, from this point on, is carried out under a constant stream of sterile saline applied through a nozzle inserted to the depths of the wound, so that the flow is upward and outward. Operating room nurses appreciate if some provision is made to care for the large amounts of saline, 5 or 10 thousand cc., for instance, which is used. Henry Marble has described a shallow galvanized iron pan with a removable ¼″ mesh hardware cloth top which may be placed beneath the wound to catch this fluid, so that it does not soak the drapes, the patient and the floor. Fluid is conducted by an appropriate spout and rubber tube to a bucket beneath the table. Excision of the skin edges is carried out with a sharp scalpel, removing about ⅛″ of skin from all borders of the wound. The skin wound is then enlarged longitudinally to such an extent that the deeper portions of the wound, which are usually much larger than the opening, may be exposed. Bruised and dirty subcutaneous tissue is resected freely and the deep fascia opened widely, not only for exposure but to avoid postoperative tension. All bruised, dirty and devitalized structures are removed. Fat, fascia and muscle may be freely resected back to healthy, freshly bleeding tissue. Care must be taken not to divide uninjured nerves and blood vessels. Gross contamination on the surfaces of tendon and bone is removed by careful sharp dissection, using sharp osteotomes, or chisels, on the bone if necessary. Small loose bone fragments which are soiled may be removed, but large fragments, even though completely detached, should be cleaned and replaced. The constantly flowing saline not only keeps the wound free of obscuring blood and clots, but also floats up within sight—torn and devitalized shreds of soft tissue which may thus be easily recognized as having been deprived of blood supply. Careful atraumatic excision of damaged and dirty tissue must be a painstaking, time-consuming process if infection is to be avoided, but meticulous care in this respect will be amply rewarded. When all injured tissues have been excised, final hemostasis is obtained. In most instances this may be accomplished by pressure or by torsion of medium-sized vessels. Larger vessels are occluded by fine ties of 4-0 chromic catgut or A silk. If debridement has been carried out properly and was performed during the period of contamination and before invasion beyond the reach of the scalpel, we now have a clean wound in which there is a minimum of bacteria, dead tissue and foreign bodies.

Decision as to closure is now in order. If in the judgment of the surgeon debridement has been thorough and the remaining tissues are clean and healthy, closure is in order and should be accomplished without burying foreign bodies in the wound or strangling the tissue with sutures. Therefore, the only structures which may permissibly be sutured in the depths of the wound are nerves and important tendons. Internal fixation of bone with foreign material should be avoided unless the surgeon has had sufficient experience with such cases to know that he can routinely get primary healing in the absence of such foreign material. Only then is he justified in burying hardware in such a wound. No sutures are placed in fascia or subcutaneous tissue. These are not only harmful but unnecessary. They produce harm by strangling tissue, by leaving foreign bodies in the wound, and by preventing the release of tension from the deeper portion of the wound. Moreover, no surgeon confronted with a subcutaneous wound, such as a dislocation in which muscles, ligaments and fasciae are torn, would think of making an incision in order to suture these structures in layers. Therefore, deep sutures are unnecessary even in open wounds. We close the skin only with interrupted rather than continuous sutures. These sutures are placed about ¾″ apart to allow free exit of blood and serum from the depths of the wound and to avoid tension in the deeper tissues. The skin should close without tension. If it is imposible to close without tension, relaxation incisions should be made to allow such closure. Non-capillary suture material, such as

black silk or fine dermal, should be used. This loose closure does not prohibit drainage and release of tension, as does layer closure. In fact, it may be considered as covering the underlying wound with a dressing of skin instead of gauze.

Before closure the wound may advantageously be dusted with sulfanilamide, sulfathiazole or sulfadiazine powder. These drugs do not kill tissue, as do other antiseptics, nor do they cause a cellular inflammatory reaction. They do bring about an increase of serum and lymph in the wound because of the body's effort to bring the drug into solution, and this blood and serum bring with them fresh antibodies.

The question of drainage comes up here. The insertion of a drain into a clean wound is a foreign body which permits the entrance of and encourages infection. If in the surgeon's opinion the wound has not been cleansed sufficiently to permit primary healing, it should not be closed but should be left wide open in anticipation of the infection which is to follow. This applies to cases treated after the stage of invasion or when adequate debridement has been impossible without removing important structures, as in a shotgun wound with scattered pellets or when the blood supply to the extremity is so poor that tissue resistance is lowered. In such cases we prefer the vaseline gauze pack as advocated by Orr. It must be emphasized here that primary suturing as described above is absolutely contraindicated in military practice. As Hook[3] says, "In civil practice, internal fixation and primary closure of compound fractures has proved successful in many hands; in war surgery this type of treatment is never safe and is strongly discouraged. All of the gas gangrene reported following the attack on Oahu occurred in wounds that were closed primarily." When large numbers of wounded are being treated, often under adverse circumstances as to equipment and personnel, debridement cannot be done in the manner described above. Attempts at primary closure under such conditions will be disastrous. Here again, the vaseline gauze pack is the treatment of choice. In those cases which are already grossly infected when seen, operative treatment is limited to simple incision through skin and fascia to expose the depths of the wound and allow drainage. Foreign bodies are removed and the wound may be gently irrigated, but no excision is practiced. Again, the vaseline gauze pack is used to hold open the recesses of the wound and to permit the free escape of exudate. Regardless of whether the skin has been sutured or the wound packed and left open, absolute rest and protection from trauma and reinfection are essential principles in the after-care. This is best obtained by immobilization in a non-padded plaster cast which incorporates the transfixion pins and provides fixation of bones and soft tissue. No windows are cut in this plaster, either to satisfy curiosity or to change dressings. In the sutured cases the plaster is changed as dictated by the progress of bone healing and sutures are removed at this time. Fine silk skin sutures will remain in place without harm underneath a light dressing and a plaster cast for many weeks. When the wound is left open with the vaseline gauze pack, the plaster and dressing are changed only at infrequent intervals according to the indications laid down by Orr. All cases routinely receive prophylactic mixed gas and tetanus antitoxin immediately after operation, and in the last few years postoperative x-ray and sulfonamide have been administered to the more severe cases.

The foregoing principles and technic have been adopted bit by bit over the last eight years at the Louisville General Hospital. During this time 325 compound fractures of the tibia and fibula were admitted before clinical infection had set in. Over 60 per cent of these were due to motor vehicle accidents and most of the remainder were due to severe trauma, such as airplane and railroad accidents, falls from a height, or crushing injuries. Fifteen were due to gunshot wounds, and only twenty were due to ordinary falls at home or on the street. Almost all, therefore, had severe bone and soft tissue injury by direct violence and many had serious damage to other parts of the body. In sixty-eight cases death occurred within forty-eight hours from shock, hemorrhage or associated intracranial or other injury. Primary amputation, because of irreparable crushing or lack of blood supply, was deemed necessary in six cases. Two patients left the hospital, and death from other complications occurred in four cases before the presence of infection in the wound could be demonstrated. This left 245 cases in which the result of treatment of the wound could be studied. These cases were treated in general by the principles outlined above. However, since the details of technic were gradually evolved over this period of eight years, the earlier cases did not have as thorough debridements, as copious irrigations, or as free use of skeletal fixation in plaster as have later cases. Likewise, of course, they did not have the benefits of local or systemic sulfonamide therapy.

RESULTS OF TREATMENT OF 245 COMPOUND FRACTURES OF THE TIBIA AND FIBULA

	Primary suture	*Vaseline gauze pack*
Primary Healing	166	....
Secondary healing (including skin slough, wound separation and mild infections which did not require treatment)	23	21
Severe soft tissue infections requiring active treatment	4	1
Osteomyelitis	13	8
Gas infection	6	3
Total	212	33

It should be emphasized that the results shown in the table do not represent controlled comparison

[3] Hook, F. R.: *Bull. Am. Coll. Surg.* **27**: 120 (April) 1942.

between wound closure and packing open with vaseline gauze, since the latter method was used in general in the later and more badly contaminated cases. We believe that both methods have their place in the treatment of traumatic wounds.

CONCLUSIONS

The treatment of the wound in compound fractures should be carried out along the lines of established surgical principles aimed at: (1) removing or rendering innocuous the bacteria present in the wound without causing additional injury; (2) removing foreign bodies and dead tissues which provide food and protection for the bacteria; and (3) providing rest and protection from tension, trauma and reinfection in order that the natural reparative processes may not be hindered.

The essential to success is not blind faith in such meaningless terms as "debridement and primary closure," "sulfonamide implantation," "Orr," "Bipp," or "Dakins" treatment, but rather in careful adherence to the principles outlined above.

THE DIAGNOSIS OF CHRONIC BRUCELLOSIS

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MENTONE

This paper is presented as a literature review of recent findings in the field of chronic brucellosis. The writer has made the diagnosis of brucella infection in forty-four individuals in the past three and one-half years, and his findings, both as to diagnosis and treatment, will be evaluated in a later paper.

HISTORICAL FEATURES

The first complete description of this disease was given by William Burnett, in 1814, in describing the so-called "bilious remittent fever of the Mediterranean." Bruce isolated the specific organism in 1886 and, in 1895, published the findings of a British "Malta fever expedition," which studied the disease on the island of Malta. In 1897, Bang isolated the causative organism in contagious abortion of cattle, but it was not until twenty years later that the association of these two organisms was finally demonstrated. In 1914, Kennedy[1] pointed out the incidental discovery of high titre agglutinins for Malta fever organisms in the milk of London cows. Since undulant fever, or Malta fever, as it was then called, was considered to be found in the Mediterranean countries only, he felt that this reaction was not specific, although he did question the possibility, "too alarming to be acceptable," that these cows might be infected with the same organism. In 1918, Alice Evans[2] pointed out the great cultural similarity of Bacterium abortus of Bang and Bacterium melitensis of Bruce. She questioned the possibility of there being a disease in the United States similar to Malta fever, which might be contracted from infected cows. In 1924, Keefer[3] reported the first case of human brucellosis in this country. Since that time the reported incidence of cases of brucellosis in this country has been gradually rising. The acute type of the disease, when severe, is probably recognized and reported in a fairly high percentage of incidence. The chronic form of the disease, on the other hand, is as yet not well recognized, nor is it often reported. In Oklahoma, for instance,[4] the incidence of reported cases increased from 10, in 1935, to 431, in 1937.

INCIDENCE IN INDIANA

The reported cases in Indiana are as follows:[4] 1930, 31 cases; 1931, 27 cases; 1932, 30 cases; 1933, 15 cases; 1934, 34 cases; 1935, 15 cases; 1936, 15 cases; 1937, 20 cases; 1938, 52 cases; 1939, 58 cases; 1940, 57 cases; 1941, 24 cases; and 1942, to the week ending Nov. 28, 29 cases.

It is easy to see from these figures that only a small percentage of all the cases present in the state are reported. Probably because of the rather indeterminate status of the chronic disease, most physicians are reporting only the acute cases. One purpose of this paper is to encourage more accurate diagnosis of the chronic stage, as well as more complete reporting of cases, because only by the reporting of a high incidence among human beings can effective measures for control of the disease in animals be encouraged.

Axby, state veterinarian for Indiana, reports that up to 1937 almost 14 per cent of the cattle tested were affected with Bang's disease. Before June 1, 1937, this state-wide testing was done under federal-state cooperation, but since that time the legislature has refused to make any further appropriations for such work. As a result, the incidence of testing has dropped off, depending now on the herd-owner's desire, or on local herd regulations.

A November 1, 1942, pamphlet from the United States Department of Agriculture reveals that for

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[1] Kennedy: *J. Royal Army Med. Corps*, **22**:9, 1914.

[2] Evans, A. C.: Bact. Abortus and Related Bacteria, *J. Inf. Diseases*, **22**:580-593, 1918.

[3] Keefer, C. S.: Report of a case of Malta Fever Originating in Baltimore, Maryland, *Bull. Johns Hopkins Hospital*, **35**:6-14 (Jan.), 1924.

[4] Prevalence of Brucellosis in United States, *U. S. Public Health Report*, **58**:1195-1199 (July 15), 1938.

the period from 1935 to 1942 Indiana showed 5.7 per cent positive reactors among 828,495 cows tested. This includes many re-tests, and no figures are available at this time on primary tests which, if considered alone, have a higher percentage positive reactors.

PREVENTION

Indiana does not at this time have a universal pasteurization law. Our statute now requires that all milk sold at retail be pasteurized unless it originates from herds that are annually tested and found negative to Bang's disease. This is not a sufficiently strong law, inasmuch as cases have been reported where the organism of contagious abortion was isolated from the milk of animals which had negative blood agglutination reactions. In our own community the law has so far been satisfactory in its working. The one dairy which provides milk for the town has had a certified herd for five years, and although the milk is not pasteurized I have not traced a single case of brucellosis to this milk supply. However, this does not mean that the law is adequate. Universal pasteurization is the only full protection. That does not hold true, obviously, in the case of farmers, where raw milk is almost universally consumed. Until we have compulsory statewide testing, with disposal of infected animals and immunization of young animals, we will still see brucellosis in human beings. In the words of Hartsock,[5] "Until brucellosis is better controlled, we should consider this disease as a scourge of mankind which is becoming more and more prevalent. It should be regarded as a major health problem."

BACTERIOLOGY

There are three main varieties of the causative organism now recognized, and since the immunologic reactions of these three are at variance, any published reports on the disease must be evaluated with that in mind. The original one, Brucella melitensis, which causes the disease in the Mediterranean area and in Mexico, causes the development of high titre agglutinins in a large percentage of cases. On the other hand, Brucella abortus and Brucella suis, which cause most of the cases in this country, are relatively less active in causing the development of agglutinins, opsonins, and complement fixing reagins.

EPIDEMIOLOGY

The disease is spread to humans mainly by ingestion of milk from infected cows. It may also be contracted by handling infected animal material, such as the fetus or placenta of an infected animal. A less likely source of infection, but one which is being investigated more thoroughly at this time by the United States Department of Agriculture, is infected pork. The form of the organism which infects the hog, Brucella suis, is more virulent for man than is Brucella abortus.

So far as is now known, there is no insect vector of the disease, nor is it considered communicable from person to person.

SYMPTOMATOLOGY

Brucellosis is truly a protean disease, with manifestations referable to any organ or system of organs in the body. It has been likened to syphilis or tuberculosis in this regard. Calder[6] and Davis[7] have reviewed well the complex symptomatology.

The acute disease, with a relatively high fever, profuse sweating, severe headache, mild generalized aching, weakness, constipation, leukopenia, positive agglutination and positive blood culture, is a clear-cut clinical entity. On the other hand, the chronic case, with little or no fever, is often hard to recognize. Symptoms are manifold. If the patient has had the disease very long he almost invariably ends up with a diagnosis of neurasthenia. He complains of weakness, lack of pep, poor appetite, constipation, mild abdominal cramping, loss of appetite, weight loss, backache, bloating after eating, loss of sexual desire, and many vague, indeterminate symptoms. The diagnosis of neurasthenia is often encouraged in the physician's mind by a definite psychoneurotic trend in the patient's thinking. Few cases of true psychosis are reported in undulant fever, but insomnia, depression, irritability and restlessness are common. These may be induced by the fact that the patient has been ill over a number of years, that he has received almost every conceivable type of treatment and diagnostic regime, that he has been told he had "liver trouble," "bowel trouble," "kidney trouble," and many other kinds of "trouble," that all the medications given to him for these various conditions have been ineffective, and that he continues to feel all-in. I believe that psychoneurosis is a justifiable outlet in some of these cases. Some physicians scoff at the chronic phase of the disease and can legitimately point out the fact that all of the above-mentioned symptoms may be found in patients suffering from more clearly described entities. The present methods of diagnosis of chronic brucellosis are admittedly inadequate, but the writer feels that the diagnosis must not be excluded on one test only, as is the commonly accepted practice among many physicians at this time. It has been my experience, and that of others, too, to make a diagnosis of chronic brucellosis, then have the diagnosis refuted by another physician because of the absence of a positive blood agglutination. Another purpose of this paper is to evaluate these tests as we now have them available.

[5] Hartsock, C. L.: Diag. and Treatment of Brucellosis, *Cleveland Clinic Quarterly*, **9**:22-32 (Jan.), 1942.

[6] Calder, R. M.: Chronic Brucellosis, *So. Med. J.*, **32**:451 (May), 1939.

[7] Davis: Chronic Brucellosis, *J. Indiana State Med. Assoc.*, **35**:459 (Sept.), 1942.

BLOOD CULTURE

This is the only method of testing which may be considered 100 per cent accurate, because the isolation of the causative organism from the blood of a diseased person is conclusive evidence that that patient has the disease. However, in brucellosis, even in the acute stages, the percentage of positive blood cultures is very low. The abortus form of the organism is grown best in a 10 per cent carbon dioxide atmosphere and grows very slowly, so that culture must be continued many days. The technic is difficult. Goss[8] reports no positive blood cultures in 44 cases which he studied. Gould and Huddleson[9] report only 4 positive blood cultures among 623 cases of brucellosis in an epidemic in a state hospital, which they studied. On the other hand, working almost totally with the melitensis or goat type of organism in Mexico, Castenada [10, 11] reports 84 per cent positive blood cultures in acute cases, and in another series 20 positive blood cultures in 33 cases. It seems correct to say that in this country, in the presence of an acute febrile illness of unknown etiology, the blood should be cultured for Brucella abortus, but that in dealing with the chronic form of the disease, blood culture is not of great value.

SKIN TEST

Giordano[12] first called attention to the fact, in 1929, that the intradermal injection of killed suspensions of Brucella abortus would produce local reactions in patients who had undulant fever. At the time of this original publication he felt that this test was very accurate because of the 99 per cent negatives obtained in control studies. However, since that time it has been shown by Giordano, and others, that the test may be similar to tuberculin tests, in that a positive reaction may indicate only past disease, and not present activity. Huddleson[13] uses his brucellergin, which is a suspensoid of a nucleoprotein derived from brucella organisms. He feels that the brucellergin skin test is almost completely accurate in determining present or past infection. According to him, a negative brucellergin skin test rules out the possibility of brucellosis, with a high degree of accuracy. However, Evans and her co-workers[14] found that 39 per cent of their infected cases had a negative skin test. Huddleston does not feel that his skin test is positive unless there is induration. In other words, a simple redness does not constitute a positive skin reaction. Ervin and Hunt[15] feel that the redness and induration must remain at least a week to constitute a positive reaction. Evans feels that there are cases where the skin test is positive because of repeated exposure to the organisms, as in veterinarians, without other evidence of either present or past disease. This may represent only a slight disagreement with Huddleston's interpretation of a positive test. Simpson[16] uses .05 cc. of 1-10 dilution of Brucella abortus vaccine intradermally as a skin test. Hartsock[5] uses 0.1 cc. of undiluted stock vaccine intradermally. Calder[6] uses Foshay's anti-serum intradermally. The writer has been using 0.1 cc. of a 1-5 dilution of stock vaccine, which contains one thousand million each Brucella abortus and Brucella suis per cc.

AGGLUTINATION TEST

In an acute case of brucellosis the agglutinins develop quite soon, and a positive blood agglutination test will often be found within a few days after onset of the disease. However, this is by no means constant. There is often found a variation in agglutination titre from day to day on repeated tests in the same individual. Inasmuch as a titre below 1-40 is not usually considered significant,[14] any titres found below that should be evaluated by further tests. Although Evans[14] does not feel that titres below 1-40 are significant, Goss[8] feels that 1-20 or lower may be of importance. The fact that the agglutination test may be negative in the presence of even an active disease has been demonstrated many times. Calder[6] found only 62.5 per cent positive agglutinations in 24 acute cases. Gould and Huddleson[9] found only 5.3 per cent positive agglutinations in 623 cases, both acute and chronic. In 1,300 cases Calder found only 44.4 per cent positive agglutinations. I quote directly from Gould and Huddleson: "It would, therefore, seem that the agglutination test should be used as a confirmatory rather than as a diagnostic test. A negative agglutination cannot be considered to rule out the presence of brucellosis." Goss found only 27 per cent of his cases with positive agglutinations. Evans found 54 per cent with positive agglutinations. In dealing with the melitensis strain of the organism, Castenada[10] found 93 per cent positive agglutinations. Remember, however, that we rarely see this type of the organism in Indiana.

Considered from the other point of view, false positives, the agglutination test is quite accurate. In other words, if a patient's blood shows a posi-

[8] Goss: Chronic Brucellosis, *Northwest Med.*, **40**:419-423 (Nov.), 1941.

[9] Gould, E. F. and Huddleson, I. F.: Diag. Methods in Brucellosis, *J.A.M.A.*, **109**:1971-1974 (Dec. 11), 1937.

[10] Castenada, M. R., and Cardenas, C. C.: Treatment of Brucellosis with Brucella Antigens, *Amer. J. Trop. Med.*, **21**:185-190 (March), 1941.

[11] Castenada, *et al.*: Evaluation of Diag. Tests in Brucellosis, *J. Inf. Diseases*, **70**:97-102 (Mar., Apr.), 1942.

[12] Giordano, A. S.: *J.A.M.A.*, **93**:1957-1958 (Dec. 21), 1929.

[13] Huddleson, I. F.: Brucella Inf. in Animals and Man, Commonwealth Fund, 1934.

[14] Evans, A. C., *et al.*: Evaluation of Diag. Lab. Tests in Chronic Brucellosis, *U. S. Public Health Reports*, **53**:1507 (Aug.), 1938.

[15] Ervin, C. E., and Hunt, H. F.: *J.A.M.A.*, **109**:1966-1971 (Dec.), 1937.

[16] Simpson, Walter M.: Diag. and Management of Brucellosis, *Annals of Internal Med.*, **15**:408-430 (Sept.), 1941.

tive agglutination in a titre of 1-40, or above, it is very good evidence that that patient has, or has had brucellosis. All the authors agree on this point.

THE OPSONOPHAGOCYTIC INDEX

When Huddleson originally published the reports on this test, combining it with his diagnostic intradermal brucellergin, it seemed that he had gone a long way towards solving the problem of diagnosis of brucellosis. He felt that if a patient with a positive skin test showed a strongly positive opsonophagocytic index, that patient could be considered to have undulant fever, but to be immune or inactive. If, on the other hand, the patient had a positive skin test and a negative or weakly positive opsonophagocytic test, he was an active case in need of therapy. However, many other writers disagree with this. Roughly, the opsonic index test is done by mixing a suspension of live organisms with fresh blood from the patient, then determining the ability of the white corpuscles in the patient's blood to assimilate, or phagocytize the live organisms. Huddleston has worked out a method by which the number of organisms in each of twenty-five white cells is counted, and the result evaluated according to pre-existing standards. However, as may be seen, it is a difficult test to do, requiring excellent technic and considerable experience of interpretation. Goss says, "I found it tricky to interpret and at times apparently inconsistent." Simpson felt that the test was too inconsistent for use, either in diagnosis or as an aid to treatment. Evans[14] felt that it was the least accurate of the three commonly used diagnostic procedures. Hartsock has little faith in the test either as a measure of immunity or as an index to stopping treatment. Jersild[17] has developed a variation of Huddleson's test, which he feels to be more sensitive and more accurate.

THE COMPLEMENT FIXATION TEST

Wise and Craig[18] do not feel that this test has any advantage over the agglutination test and, because it is more difficult to do, they do not feel that it is worth while as a routine procedure. They point out that it is no indicator of active infection alone, and that the positive complement fixation may be found in recovered patients.

BLOOD STUDIES

Calder[19] has an excellent summary of the blood findings in brucellosis. He felt that leukopenia was a usual finding in acute and seriously ill patients, but that in the chronically ill patients leukopenia was not constant. About 50 per cent of their cases had a normal total white count, 33 per cent had leukopenia, and 16 per cent leukocytosis. However, 76 per cent of their cases had more than 30 per cent lymphocytes and 16 per cent had more than 50 per cent. In addition, the number of immature lymphocytes was increased. There was some increase in plasma cells, no constant change in monocytes. A mild macrocytic hyperchromic type of anemia was frequently found. Definite macrocytosis was present in more than half of their cases, and hyperchromia was also a frequent finding. Blood-clotting time was slowed in approximately one-third of their cases. The sedimentation rate was elevated in about the same proportion, although the rate was not usually extremely high, except when complications were present.

COMMENT

As may be seen, the diagnosis of chronic brucellosis is still by no means a cut-and-dried affair. There is much disagreement as to the value of the various tests, and several of the tests are too highly technical to be of value to us in practice. However, it does seem to me that a certain definite regime may be followed to rule out, in a great majority of cases, the presence of brucellosis in our chronically ill patients.

My own routine has been as follows: Because the symptoms are often so manifold, it is first necessary to give the patient a complete physical examination, including blood studies. Then it may be necessary to do specialized procedures, such as tuberculin testing, x-ray examination, et cetera, to rule out the presence of other organic disease. In other words, the diagnosis of brucellosis often has to be made by exclusion, and it certainly should not be arrived at until other diseases are ruled out.

History is often of great value. Farmers may not be very particular about their own health, but they are usually quite so about their stock, and almost any farmer can tell you whether he has ever had contagious abortion in his herd. In an occasional case it is possible to get a history of acute illness in the family at the same time or shortly after contagious abortion was noted in the cattle. In city dwellers a history of exposure to raw milk or raw meat, as in a butcher or other meat handler, must be considered significant. Simpson, working in Dayton, found that fifty-one of fifty-two cases, which he has had since Ohio passed a universal pasteurization law, had been drinking raw milk. The additional case was a butcher handling raw meat.

The diagnostic studies to be specifically done for brucellosis should be done in this manner: First, the agglutination test and blood culture should be taken. At the same time, if a competent laboratory is available, an opsonophagocytic index may be done. It is important to do these tests before any skin tests are done, because the injection of even a small amount of killed organism suspension, of brucellergin or of Foshay's anti-serum, into the skin may cause the development in the blood of agglutinins or opsonins, thus rendering further tests worthless.

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[17] Jersild: *J. Inf. Diseases*, **68**:16-19 (Jan.-Feb.), 1941.

[18] Wise, B., and Craig, H. W.: *J. Inf. Dis.*, **70**:147-151 (Mar.-Apr.), 1942.

[19] Calder, *et al.*: Blood Studies in Brucellosis, *J.A.M.A.*, **112**:1893-1898 (May 13), 1939.

After the blood has been taken for agglutination, culture, and opsonophagocytic index, the skin test may be done. As stated above, this may be done in various manners. I do not agree with Davis[7] that the skin test is dangerous. However, I do think that it should be done with diluted vaccine, or with a low concentration of brucellergin. I have seen a rather sharp febrile response in using the undiluted vaccine. In my own practice, using 0.1 cc. of 1-5 dilution (diluted with prepared diluent solution), I consider a test positive if there is more than 5 mm. of redness remaining after forty-eight hours. Induration may or may not be present, and in an occasional patient a small sterile abscess may form. In patients with a definitely positive skin test the induration often remains for several weeks.

Although there is no record of it having been done, I feel that a later test should be done with brucellergin in the event that the initial vaccine test is negative. In that way certain cases may be discovered which would previously be considered negative.

If both skin test and agglutination are positive, the evidence is very strong for an active, not necessarily acute, brucellosis. If only one of the tests is positive, additional information may be gained from the opsonophagocytic test or, more practically, from a course of vaccine or brucellin. The clinical improvement in these patients is often startling, and it is certainly gratifying to the physician. It is not the purpose of this paper to discuss therapy, which will be considered later.

SUMMARY

1. Brucellosis (undulant fever) is a chronic disease in many patients.

2. Its symptoms are so varied and its manifestations so protean as to render diagnosis very difficult. The patient is often considered neurasthenic.

3. Blood culture is rarely positive in the chronic disease.

4. Agglutination tests are positive in a certain percentage of cases, but the absence of a positive reaction is no proof of freedom from brucellosis.

5. Skin tests are positive in a large percentage of cases, but do not differentiate between present and past infection.

6. The opsonophagocytic index test, if carefully done, has value in the determination of immunity.

7. For practical purposes, to the physician who does not have access to the special laboratory procedures, such as culture or opsonophagocytic index test, the results of the skin test and agglutination test must be combined with his clinical judgment and with a therapeutic test in making a diagnosis of brucellosis.

ABSTRACTS

USE OF POOLED BLOOD PLASMA AND SERUM

In pools of a sufficient number of samples of plasma or serum obtained from donors belonging to all four blood groups the amount of substances, known as anti A and anti B agglutinins, which might cause serious reactions is reduced to such a low level that no danger can result to patients from injection into a vein of even large therapeutic doses from such pools, William Thalhimer, M.D., New York, declares in *The Journal of the American Medical Association* for December 19. His statement is based on his own investigations as well as an analysis of data of other investigators and is in answer to several recently published opinions questioning such a procedure on the basis of the possible danger from the injection of incompatible agglutinins or incompatible A or B substances.

SYPHILIS RATE OF U. S. MALES BETWEEN 21 AND 35 IS 4.77 PER CENT

The rate of prevalence of syphilis for the entire male population of the United States between the ages of 21 and 35 is estimated to be 47.7 per thousand, based on serologic blood test reports of 1,895,778 white and Negro men between those ages who were tested under the provisions of the Selective Training and Service Act of 1940, R. A. Vonderlehr, M.D., and Lida J. Usilton, M.A., Washington, D. C., report in *The Journal of the American Medical Association* for December 26. The rate of prevalence of the disease based on positive and doubtful blood tests among the selectees examined is 45.3 per thousand. The rate of prevalence among Negro selectees is 252.3 per thousand, among white selectees 17.4 per thousand. The estimated rate of prevalence for the entire male Negro population age 21 to 35 is 272 per thousand, for the entire male white population 23.5 per thousand.

The rate of prevalence among selectees from rural areas is 43.8 per thousand, from urban areas 46.1 per thousand. The estimated rate of prevalence among the entire male population age 21-35 in rural areas is 49.4 per thousand, while in urban areas it is 46.5 per thousand.

The highest prevalence rates for whites and Negroes are found in the Southeastern states, the lowest in the New England, West North Central and Middle Atlantic states.

The authors explain that the study does not include data from Idaho, Kentucky, Oregon and Vermont, as these states did not use the standard report forms and the data they supplied were incomplete. All rates represent the proportion of men between the ages of 21 and 35 with suggestive early lesions of syphilis or with positive or doubtful serologic test results.

It was found that among white men and Negroes the rates rise sharply with increasing age. Among white urban dwellers the rate of prevalence is almost four times as high in the age group 31-35 as in the age group 21-25. Among Negro urban dwellers the rate among the oldest men is about twice the rate among the youngest men.

The two authors say that "This, of course, does not mean that the older men are exposed to syphilis twice or four times as fast as the younger men but rather that there is a constantly accumulating backlog of uncured syphilis. This is due in part to the fact that too much syphilis never is brought to treatment and in part to the fact that too many syphilitic patients are not held through an adequate treatment course."

THE ELECTROCARDIOGRAPHIC DIAGNOSIS AND TREATMENT IN RECENT CORONARY OCCLUSION

HARVEY N. MIDDLETON, M.D.
INDIANAPOLIS

Electrocardiography has become an essential part of the methods of examination of the heart. I would not have you believe that it is the final authority on all ailments of the heart, yet the cardiograph is no longer regarded by any thoughtful physician as an impractical toy for the curious, an impressive hoodwink for the unscrupulous, nor merely a good investment for the mercenary.

The value of the electrocardiogram in explaining the applied physiology of the heart has been extraordinary in the last twenty or thirty years. It is useful in many ways in clinical medicine: first, in determining the type of cardiac irregularity; second, in locating valvular or congenital lesions; third, in estimating and locating myocardial damage or involvement; and fourth, in aiding the management of cardiac cases. We must not, however, expect too much from the electrocardiograph. While it has a definite place in clinical practice, it cannot replace other customary methods of making a diagnosis, as some physicians have imagined.

Furthermore, it must be realized that the electrocardiogram gives its information by showing the spatial character of the invasion and retreat, and by showing the presence of injury. By the use of the electrocardiograph the diagnosis, prognosis and treatment of heart disease have been considerably improved. At present, conditions can be recognized and treatment more intelligently directed in a manner entirely beyond the scope of the most experienced physician a generation ago.

The terms "coronary occlusion," "coronary thrombosis," and "myocardial infarction" are often employed synonymously, although there are useful differences in their meanings. Coronary thrombosis refers to a special type of coronary occlusion, thrombosis being the final event in the process of occlusion. Myocardial infarction, although a frequent result of coronary occlusion, does not always follow it.

In cases of recent coronary occlusion the value of electrocardiograms has been definitely established. There is a whole series of changes produced on the four-lead electrocardiograms. The fourth lead, known as the chest or precordial lead, has come into prominence only recently. Still, sufficient information has been published to give a fair basis for interpreting it, and obscure points are rapidly being clarified.[1] It is often of definite assistance in determining the presence, the location, and to some degree the age of the myocardial infarcts. The published reports of a number of cases in which autopsies were performed furnish additional evidence of the accuracy of the electrocardiographic findings. However, the significance of some details is still undetermined. Some investigators have stressed the contour and direction of the QRS complex; others the changes in the ST segment; still others the contour of the T wave.[2] In a large number of cases the abnormalities in the three conventional leads are in accord with those in the fourth or precordial lead, but this is not true in all cases.[3] The reason for this is not clear. There may be a number of times in which the chest lead is characteristic of infarction, yet the three conventional leads may show none of the classic changes. The reverse may be true, that is, the three conventional leads will show changes characteristic of infarction, and the chest lead will be atypical.

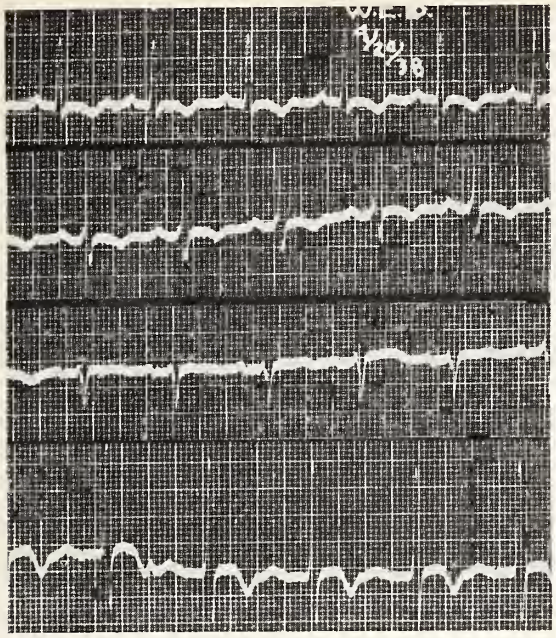
The attempts to determine the sites of myocardial infarction by the recognition of characteristic electrocardiographic curves started in 1928 when Parkinson and Bedford demonstrated that there were two general types obtained from patients who had suffered from coronary thrombosis.[4] They called these T_1 and T_3 types. In the T_1 type there was upward displacement of the RST segment and an inversion of the T wave in lead I, while in lead III the RST segment was displaced downward and

[1] (a) Wolferth, C. C., and Wood, F. C.: Electrocardiographic Diagnosis of Coronary Occlusion by Use of Chest Leads, *Am. J. M. Sc.*, **183**:30, 1932.
(b) Goldbloom, A. A.: Clinical Evaluation of Lead IV (Chest Leads), *Am. J. M. Sc.*, **187**:489, 1934.
(c) Katz, L. N., and Kissin, M.: A Study of Lead IV, *Am. Heart J.*, **8**:695, 1933.

[2] Wood, F. C., and Wolferth, C. C.: Huge T Waves in Precordial Leads in Cardiac Infarction, *Am. Heart J.*, **1**:706, 1934.

[3] (a) Wood, F. C., and Wolferth, C. C.: An Electrocardiographic Study of Experimental Coronary Occlusion: The Inadequacy of the Three Conventional Leads in Recording Certain Characteristic Changes in Action Current, *J. Clin. Investigation*, **11**:815, 1932.
(b) Wolferth, C. C.; Wood, F. C., and Bellet, S.: Acute Cardiac Infarction Involving Lateral Wall of the Left Ventricle, *Am. Heart J.* **16**:387, (Oct.) 1938.
(c) Bellett, S., and Johnston, C. G.: The effect of Coronary Occlusion upon the Initial Phase of the Ventricular Complex in Precordial Leads, *J. Clin. Investigation*, **13**:725, 1934.

[4] (a) Parkinson, J., and Bedford, D. E.: Successive Changes in the Electrocardiogram after Cardiac Infarction (Coronary Thrombosis). *Heart J.*, **14**:195, 1927-29.
(b) Barnes, A. R., and Whitten, M. B.: Study of the RT Interval, in Myocardial Infarction, *Am. Heart J.*, **5**:142, 1929-30.
(c) Wilson F. N.; MacLeod, A. G.; Barker, P. S.; Johnston, F. D., and Klostermyer L. L.: The Electrocardiogram in Myocardial Infarction with Particular Reference to the Initial Deflections of the Ventricular Complex. *Heart J.*, **16**:155, 1933.



Case I—Figure I

the T wave was sharply upright. In the T_3 type, the RST segment was displaced upward in Lead III and downward in Lead I, and the T wave was inverted in Lead III and upright in Lead I. In the following year, Barnes and Whitten showed that the T_1 type was frequently associated with infarction of the anterior surface and of the apex of the left ventricle, that is, in the distribution of the anterior descending branch of the left coronary artery; and the T_2 type with the infarction of the posterior and basal part of the left ventricle, that is, in the distribution of the posterior-circumflex branches of both right and left coronary arteries.

Coronary occlusion must be differentiated from five other types of heart attacks, namely, angina pectoris, dissecting aortic aneurysm, pericarditis, the heartache of neurocirculatory asthenia, and pulmonary embolism.

In angina pectoris the pain is of shorter duration —from five to ten minutes. Pain may be brought on by effort and is relieved by rest, by making pressure over the area, or by the use of nitroglycerin tablets 1/150 Gr.

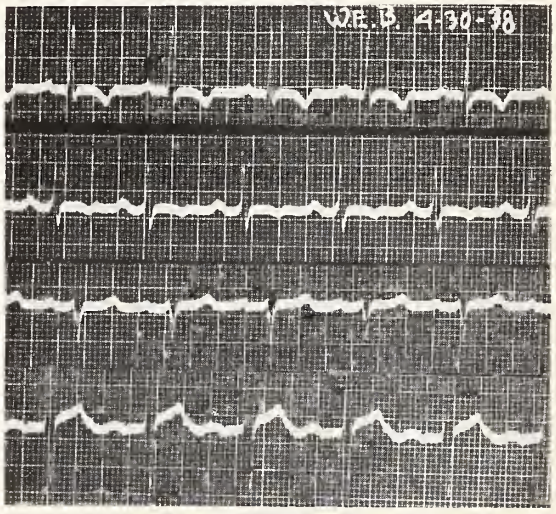
Dissecting aortic aneurysms, which occur now and then, generally have much more pain in the back than is true of coronary disease.

It is important to distinguish coronary thrombosis and dissecting aortic aneurysms because of the difference in the prognosis. The coronary thrombosis patient is likely to recover from an attack; he has about nine chances out of ten no matter how severe the pain is. On the other hand, individuals who have dissecting aortic aneurysms have only one chance out of ten to recover.

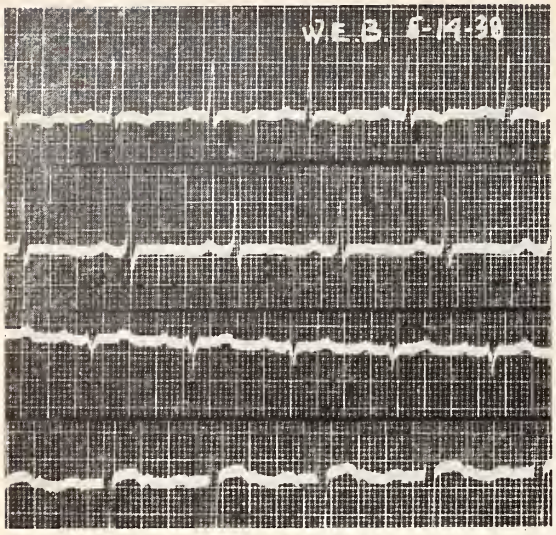
Pericarditis, of course, rarely causes sudden pain, making it an emergency, but a few individuals do have such pain. It is important, then, in the examination to emphasize two points. Has there been any angina pectoris before, and, second, is there pain on breathing? Pain on breathing is common with pericarditis but rarely, if ever, is the pain of coronary thrombosis actuated by respiration. A friction rub is often heard early in cases of pericarditis, if heard at all. The electrocardiogram does not always absolutely distinguish pericarditis from coronary thrombosis, although repeated records are invaluable. Following an emergency, an electrocardiogram is, however, essential not only in helping to make a diagnosis but in determining the degree of involvement.

The heartache of neurocirculatory asthenia is at the apex of the heart, over the region of the lower part of the precordium and to the left. It is an aching sensation and often lasts for hours. It may radiate to the arms and almost always is associated with precordial tenderness. The heartache of neurocirculatory asthenia, strange to say, is associated with tenderness, while on the other hand in many cases of coronary thrombosis there has been no sensation of tenderness; precordial tenderness is, therefore, a very important clue in distinguishing neurocirculatory asthenia from heart disease or as a complication of heart disease.

Pulmonary embolism is probably more frequently confused with coronary thrombosis than with any other condition, although the acute attack with obstruction of the pulmonary circulation may not cause great distress. Often the prostration due to pulmonary embolism has been one of the most difficult differential diagnostic problems. There tends to be more dyspnea with pulmonary embolism than with coronary thrombosis, but not always. Sometimes, however, the patient with coronary thrombosis may have acute dyspnea. The same statements apply to cyanosis. Both conditions are associated with or quickly followed by fever and leukocytosis. The x-ray may or may not be helpful. The electrocardiogram is often the most useful differential diagnostic help in the first twenty-four hours, before any physical signs of infarcts are



Case I—Figure II



Case I—Figure III

found. It affords almost conclusive evidence as to which condition exists. One must remember, however, that pulmonary embolism may cause a strain on the right ventricle and produce, thereby, changes in the circulation and in the electrocardiogram which might at first glance be confused with evidence of coronary thrombosis, unless one is aware of the characteristic changes which do occur.

Case Studies

I am presenting for your consideration two cases of coronary occlusion. The acute onset of the first was with breathlessness and vomiting, and of the second case with pain.

Case I—W. E. B., colored male, aged sixty-three. On April 17, 1938, he became extremely short of breath at 4 P. M., and began vomiting which continued until 11:20 P. M. He was cold and clammy and was short of breath without pain. He had had a previous attack at a meeting on December 27, 1937.

The physical examination revealed an ashen color, a slightly clammy condition of skin, and many defective teeth. The temperature was 99 degrees Fahrenheit, and the pulse rate was 80. On auscultation of the heart, a systolic murmur was heard at the apex. The sound was of moderate intensity. At the base, the first sound was weak and the second markedly accentuated. The arterial blood pressure was 220/160 millimeters of mercury. Extraventricular systoles were heard at the apex. The heart was enlarged to the left. The abdomen was tender in the epigastric region, and the liver was palpable.

Laboratory findings were as follows: Urine—dark red, acid in reaction, the specific gravity 1024, albumin 3 plus, and sugar 1 per cent. Microscopic findings were a few red blood cells and threads. Wassermann was negative. The basal metabolism was —14.

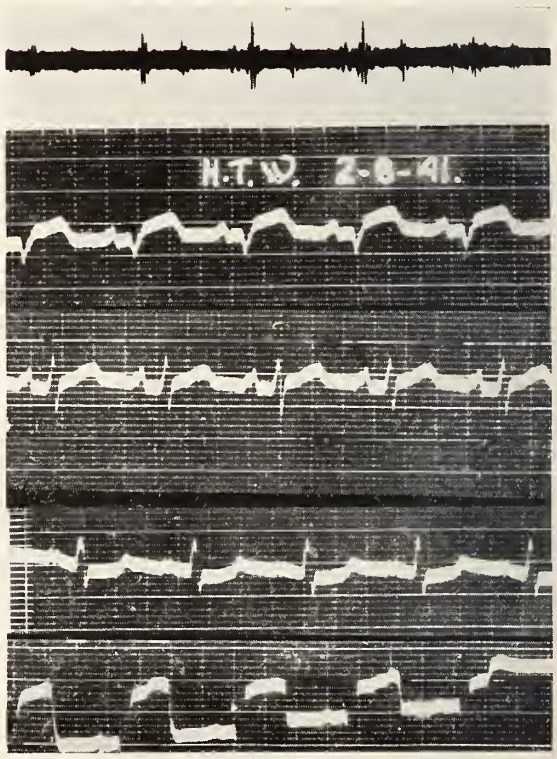
Three electrocardiograms were made. The first, on April 20, 1938, indicated coronary thrombosis with myocardial infarction of the T_1 type. The four leads each showed characteristic modifications. In leads I and II there was a convex ST segment with late inversion of the T wave; in lead III there were an iso-electric ST segment and a T wave; in lead IV a monophase QRS complex, a convex ST segment, and in inverted T wave were found.

In the second electrocardiogram, made on April 30, 1938, the following changes were noted: The T_1 wave was deeper and shoulders more acute; T_2 became smaller; ST_2 less convex; ST_3 concave; and T_3 upright. T_4 had also become upright.

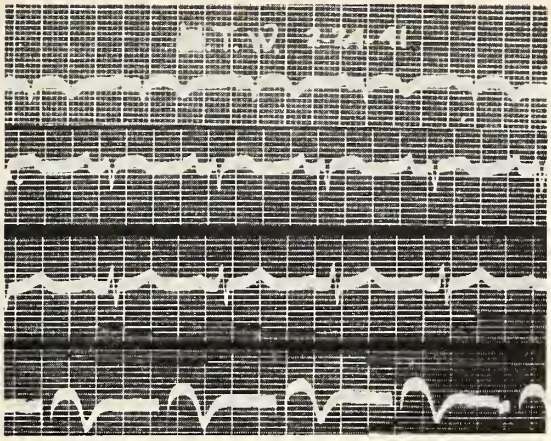
The third and final electrocardiogram, made May 14, 1938, further confirmed the diagnosis of coronary thrombosis with myocardial infarctions. The blood pressure was 200/140. ST_1 had become more iso-electric; T_1 had become smaller; ST_2 and T_2 both iso-electric; ST_3 and T_3 showed no change. ST_4 was convex and T_4 diaphasic.

Treatment consisted of theobromine, forced fluids, and magnesium sulphate. Sedation was maintained by phenobarbital. The patient died January 18, 1939.

Case II—H. T. W., colored male, aged fifty-three, was seen first by me on February 3, 1941. He had been "feeling poorly" for a day or two, and on Sunday, February 2, 1941, while he was in the bathroom a severe pain came on suddenly over the epigastrium and radiated over the heart to his left shoulder. Shortly after this he began to vomit. He was in great agony, and he felt that he was going to die. They called in a doctor who gave him one



Case II—Figure I



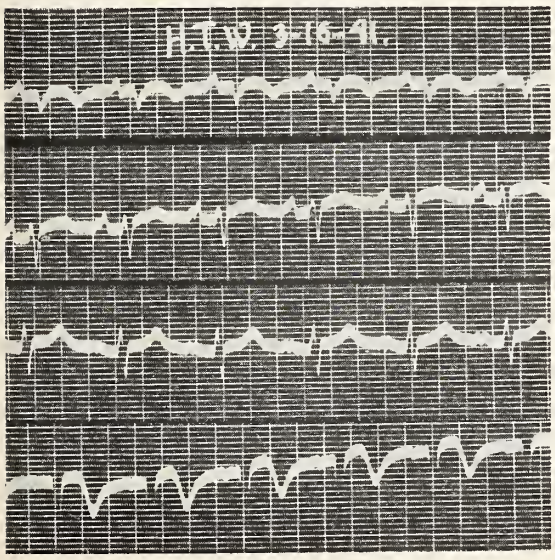
Case II—Figure II

"shot" and later, on second call, gave a second "shot" which gave the patient some relief. The vomiting of greenish and bitter material continued.

He had had pain over the midsternum and left shoulder off and on for more than two years. This pain was of short duration. The pain was associated with slight shortness of breath. It would come on at rest and was aggravated by walking fast, walking upstairs, driving his automobile, and at times on taking a bath. He got relief by resting for a short time. His wife stated that he had been starting to work from one to two hours earlier than usual.

Physical examination revealed the following conditions: He had an anxious expression on his face, which was of ashen color, with moderate perspiration. There were a few defective teeth. The temperature was 100 degrees Fahrenheit and the pulse rate 110.

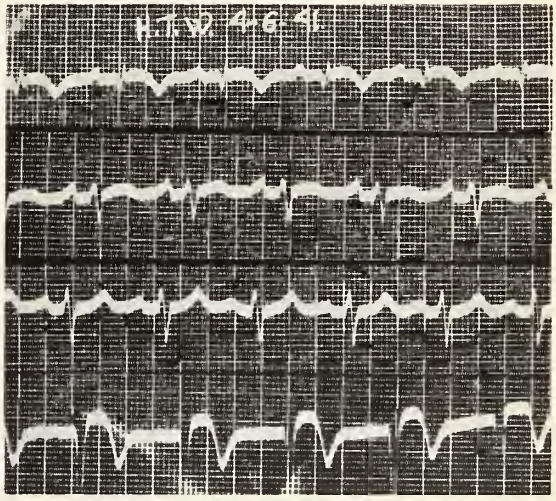
Auscultation of the heart revealed a presystolic gallop rhythm and a soft systolic murmur at the apex. The sounds at the base were distant and there were no murmurs. The arterial blood pressure was 150/90 millimeters of mercury. The chest was clear. There was tenderness on palpation over the gallbladder and epigastrium.



Case II—Figure III

Laboratory findings were: Urine—dark color, strongly acid, specific gravity 1026, albumin one plus, and sugar ¼ per cent. Microscopic findings showed red blood cells 5-10 per high-power field. Blood Wassermann was four plus.

Electrocardiograms were as follows: The first electrocardiogram on February 8, 1941, showed anterior coronary occlusion. The four leads showed characteristic changes. In lead I there was a Q wave followed by a convex ST segment. In leads II and III a depressed ST segment occurred. In lead IV the R wave was absent and there was a high take-off of the ST segment. The arterial blood pressure was 100/80 millimeters of mercury.



Case II—Figure IV

The second electrocardiogram on February 24, 1941, revealed the following changes when compared with the first one: The ST_1 segment was more convex with a cove T_1—S_2 was deeper, and ST_2 was elevated. ST_3 was elevated and slightly concave upward and T_3 was upright. The ST_4 segment was convex and T_4 inverted.

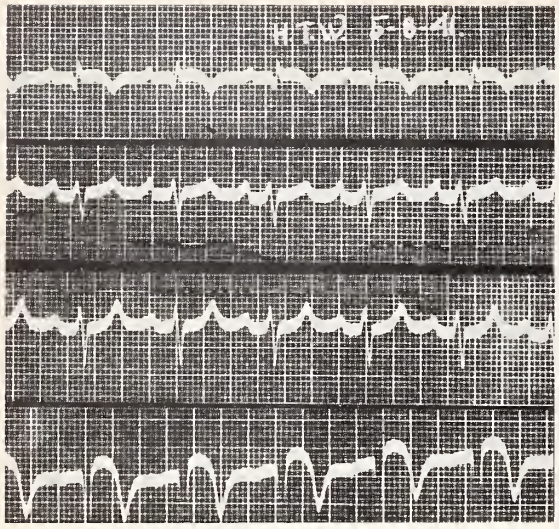
The third electrocardiogram was made on March 16, 1941. The T_1 wave was deeper and T_3 higher than on February 24.

In the fourth electrocardiogram on April 6, 1941, the changes since March 16 were as follows: Q_1 was deeper and the ST_1 segment had a higher take-off. T_1 and T_4 were deeper.

In the fifth electrocardiogram on May 8, 1941, there was little change.

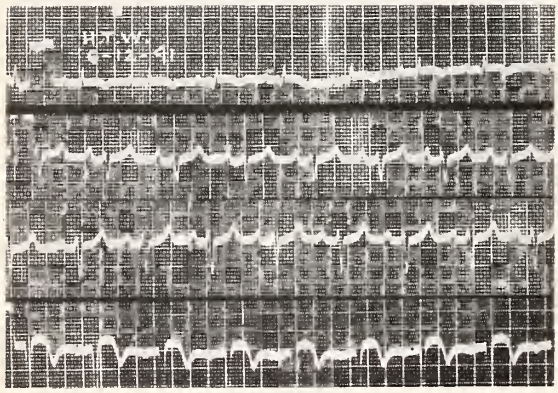
In the sixth electrocardiogram on June 12, 1941, the R_1 was higher, the ST_1 take-off was lower, T_1 was shallower, and T_4 was shorter than on May 8, 1941.

The seventh electrocardiogram was made on October 16, 1941. The ST_1 segment was slightly convex, and T_1 was almost iso-electric.

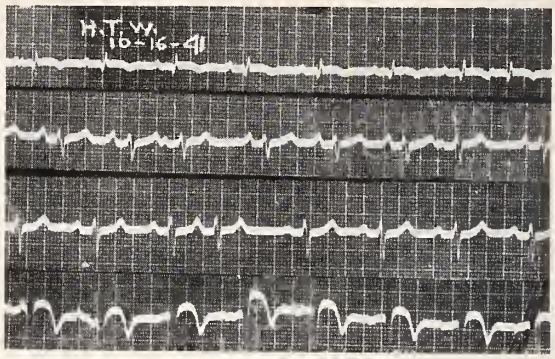


Case II—Figure V

The following treatment was used. Pain was relieved by morphine, aminophyllin and phenobarbital. Management of the patient included liquid



Case II—Figure VI



Case II—Figure VII

diet, complete bed rest, and a soapsuds enema on the fourth day.

Specific therapy was begun on the twenty-sixth of May, 1941. This consisted of bismuth subsalicylate in weekly injections, and potassium iodide given three times daily in doses of ten grains.

Summary and Conclusion

The electrocardiograms were of definite value in determining that the heart muscles were damaged; that the damage was of recent origin, and that the area of the infarction was the anterior surface of the apex of the left ventricle. This is the T_1 type of infarction in which there is an upward displacement of the RST segment and the inversion of the T wave in lead I, while in lead III the RST segment is displaced downward and the T wave is upright. The abnormalities in the three conventional leads are in accord with those in the fourth or precordial lead.

The electrocardiogram made the diagnosis certain. In this way the patients were more coöperative; therefore, management of these cases was easy.

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ABSTRACT

CONTINUOUS CAUDAL ANESTHESIA IN OBSTETRICS

A new method for continuous or fractional caudal anesthesia has been developed by Edwards and Hingson (Am. J. Surg., 57:459 (September), 1942). It appears to be remarkably effective and yet retains the complete cooperation of the patient. There has been uniform absence of delirium, narcosis, cyanosis, nausea, vomiting, and anoxemia, and no interference with uterine contractions. Every infant in the authors' series breathed spontaneously except one stillborn known to have been dead several days before delivery.

The technic consists in the injection of an initial dose of 30 cc. of 1½ percent solution of 'Metycaine' (Gamma-(2-methyl-piperidino)-propyl Benzoate Hydrochloride) followed at thirty or forty minute intervals with 20 cc. of the 1½ percent solution. In every case there has been complete freedom of pain and discomfort of active labor within five minutes following the initial dose. Episiotomy and outlet forceps, and repair of the episiotomy has been without pain. The average duration of anesthesia has ranged from four and three-quarters to thirteen hours.

One patient described was having eclamptic convulsions when admitted, with blood pressure 220/110. After the initial dose of 'Metycaine' was given, the pressure declined to 140/90 and the clinical picture improved remarkably. The anesthetic was continued throughout the day without the blood pressure exceeding 150. She delivered a healthy baby spontaneously thirteen hours after the initial dose.

TOXIC REACTIONS TO THE SULFONAMIDES*

JOHN L. FERRY, M.D.†
WHITING

The widespread use of the sulfonamides makes it particularly important that we understand their toxic reactions as well as their benefits.

Certain precepts seem clear at the outset:

(1) The treatment of a given illness should be no more dangerous than the disease itself.

(2) The dangers of use of the sulfonamides have been, at least in the beginning, considerably exaggerated.

(3) We are unable to have a long-range view of the possible late effects of these drugs, when they have been in use such a short time, relatively speaking.

(4) The sulfonamides are not a substitute for accurate diagnosis, and they should not be administered until a clear-cut indication for their use is evident.

We must know what toxic reactions may occur, promptly recognize their development, understand what can be done to prevent their occurrence, and know what treatment is available when we get into trouble.

In the majority of instances the toxic reactions to the sulfonamides are the same regardless of which of the drugs is used, although they may be more frequent with certain sulfonamides, or peculiar to certain ones. These will be enumerated.

In general, whenever toxic reactions of a serious nature occur administration of the medicine should be stopped. Then fluids should be forced. The blood level depends on the dosage used, the fluid balance, and the kidney function. Since the excretion is through the kidneys, elimination can be speeded up only by increasing the urinary output, and that is possible only if the kidney function is normal. Fluids should be forced to five or six liters daily if there is no condition present which contraindicates the use of a large volume of fluid.

The milder forms of toxic reactions are frequently encountered. The majority of patients experience some of the following: anorexia, general malaise, giddiness, headache, tinnitus, or mild diplopia. These symptoms are to be expected and are of no particular significance. However, it is important to remember that these symptoms may place the patient's life and that of others in danger if he is allowed to continue work while taking sulfonamides, for these mild impairments of judgment, unimportant to the patient in bed, may cause the operator of a vehicle or of machinery to have a fatal accident. In this regard, it is interesting to note that airplane pilots are not allowed to fly for several days after sulfonamide therapy. These unpleasant side-effects are most marked after sulfanilamide, and least marked when sulfadiazine is given. All these are decreased by bed rest.

Cyanosis is frequently seen, especially after sulfanilamide, and means little since there is no decrease in the oxygen capacity of the blood. No treatment is needed.

Nausea and vomiting occur rather frequently, especially after sulfapyridine. In some cases it may be so severe that discontinuation of the drug is necessary. Or the administration of the medicine parenterally may be required, as well as the fluids needed, for the vomiting seems to be on a central basis and often occurs even if the drug is given other than by mouth. Anorexia is so often seen following administration of all these drugs as to be the ordinary reaction and seems to be of no significance, for the illness is more important than the temporary loss of weight.

Fever occurs fairly frequently as a result of these drugs. Its usual time of occurrence is during the second week of use. It is distinguished from a febrile recrudescence of the illness by the fact that it usually occurs when the disease has been quiescent for some time and in the absence of any signs of reactivation of the infection. Occasionally fever may occur after a single or a few doses of one of the sulfonamides, and when a person has had trouble with one of the series, he may have trouble with the others. It has been noted also that some persons may become sensitized to sulfathiazole in particular, and even though they have taken one course without difficulty they may have an alarming febrile reaction to a second course. This usually occurs soon after the second course is started and is at times difficult to differentiate from the illness itself.

When such a febrile reaction is encountered, the measures outlined to speed the excretion of the drug should be started at once. As the blood stream clears, the fever disappears.

Skin rashes are seen commonly during the same period that fever is apt to develop, and they may appear concomitantly. Rashes usually start after the drugs have been administered for ten to fourteen days. The incidence of occurrence rises with increase in dosage. Most often they are morbilliform or scarlatiniform, but occasionally petechial or purpuric lesions are seen. Rarely an exfoliative dermatitis develops. In some cases it has been reported that the eruption occurred only on the exposed surface of the skin, and that the rash was the result of photosensitization of the skin by these drugs. This type of reaction is the exception but suggests, nevertheless, that the

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patient should be advised to remain indoors while sulfonamides are being given. A different type of reaction is frequently seen after sulfathiazole. In this type nodules develop, particularly on the skin of the legs. These are reddish-brown and resemble erythema nodosum. They may be accompanied by conjunctival and scleral injection, or the latter may occur alone as a result of sulfathiazole. Occasionally a purely allergic reaction is seen, usually early in the administration of sulfonamides, with intense itching, watery eyes, sneezing, dyspnea, edema of the eyelids, face and lips, and rarely edema of the glottis. Such an eruption may be urticarial, hemorrhagic, or bullous. Patch or scratch tests are positive.

In certain instances these rashes may disappear even though the drug is continued. However, as a general rule the medication should be stopped at the first sign of eruption providing the clinical condition justifies its cessation. In this regard, any fever present must be proved not to be a febrile reaction accompanying the rash, if continuation of the therapy is being considered.

The allergic reactions to sulfonamides are an indication for epinephrine. The other rashes are, in most cases, of no particular consequence except that they may confuse the clinical picture. Prompt administration of a large amount of fluid will wash out the drug, and as it disappears from the blood the eruption likewise leaves.

Mental reactions varying from mild depression or elation to true toxic psychoses are occasionally seen. This seems to be much more common in older people. Usually it takes the form of mild mental confusion. In most cases this reaction responds promptly to stopping the drug. If the mental condition is mild and the illness requires continuation of the medicine, there seems to be no particular harm in giving it.

A condition which I have noted occasionally, particularly in hypertensive patients, is a rather marked drop in blood pressure. I have not seen this mentioned in the literature. Perhaps this may account for the mental confusion in some cases. I can conceive of this being a serious reaction if the kidney function is not good to start with, for with the marked drop in blood pressure there may be a gradual development of uremia.

Occasionally, too, when a severe infection is halted suddenly by the use of sulfonamides, the patient goes into a state of collapse with sweating, subnormal temperature, and extreme weakness.

The chief danger to the kidneys, as a result of sulfonamide administration, lies in the fact that these compounds are relatively insoluble, and that a varying percentage of the drug is excreted in the acetylated form, which is particularly insoluble. If the concentration of blood sulfonamide is excessively high, or if the fluid output is inadequate by reason of insufficient fluid intake or because of the presence of dehydration which temporarily decreases the output, there is a tendency for the drug to crystallize out in the kidney tubules, pelves or the ureters. This produces concretions in these areas, which in turn cause irritation with the development of hematuria, either gross or microscopic. The extent of the damage varies from simple hematuria to complete anuria. The development of such concretions is accompanied by symptoms varying from mild fever with slight discomfort in the flanks to chills and fever and renal colic. The hematuria varies from microscopic to gross bleeding, and the urine output may vary from slight suppression to complete anuria.

The detection of this condition depends on frequent examinations of the urine. Plain x-rays of the abdomen are of no service, for the concretions are not radiopaque.

Prevention of this renal irritation depends upon the maintenance of adequate fluid intake and output (and this should be measured whether or not the patient is hospitalized). Excessively high blood levels should be avoided by not overdosing. Alkalis should be administered along with the sulfonamides, since they are thought by some to increase the solubility of the acetylated drug.

All sulfonamide therapy should be stopped at once if hematuria appears in either the gross or microscopic form. Once the condition has occurred, it is necessary to force fluids. Water is by far the best diuretic and works by flushing out the ureters and redissolving the crystals. If diuresis fails to occur or if anuria is present, the patient must be crystoscoped promptly and the kidney pelves lavaged with warm distilled water. This treatment is successful when the concretions are in the ureters and the kidney pelves, but probably has little effect when the deposits are in the collecting tubules.

Although the majority of patients who develop hematuria recover without any known renal impairment, deaths are reported often enough to make it imperative that urines be examined frequently, that treatment may be started at the first sign of renal irritation.

One of the most dramatic though infrequent toxic reactions to the sulfonamides is the development of an acute hemolytic anemia. This is reported to occur most often on the first day of administration of the drug, usually as a complication of sulfanilamide. There is a precipitous drop in the red blood count and the hemoglobin, accompanied by fever and elevation of the white blood count to levels as high as 60,000. There is usually a mild jaundice and hemoglobinuria accompanying this condition, and likewise a temporary decrease in the liver function.

Treatment consists of cessation of the drug, plus replacement by transfusions of the blood destroyed. This reaction is alarming, but seldom fatal.

There is a second type of anemia observed in the course of administration of sulfonamides when they are given over a long period of time. In

this case there is a slow but steady decline in the red blood count and the hemoglobin occurring over a period of days or weeks. If it is necessary to continue the drug, the blood destroyed should be replaced as necessary by transfusions.

One of the most feared complications is the development of agranulocytosis. This condition is seen most often after the second week of treatment. If the differential and total white blood counts are followed, there is a gradual fall in the total count with a predominant drop in the polymorphonuclear leukocytes. As this drop occurs, there is increasing malaise and gradually mounting fever. After two or three days the classical signs of agranulocytic angina appear with a severe ulcerative sore throat. By this time the polymorphonuclear cells may have disappeared completely.

Once the condition has developed, the treatment resolves itself to blood transfusions, liver therapy parenterally, and the administration of pentaneucleotide extracts. Transfusions should be given daily in 200 to 300 cc. quantities, and the pentaneucleotide 10 cc. three or four times daily. Both are gradually decreased as improvement occurs. When the condition has gone on to the point of complete or almost complete disappearance of the polymorphonuclears, the mortality rate is high. If treatment is started early the prognosis is better, although I have never seen convincing evidence that the treatment makes much difference in the outcome.

To guard against this development white blood counts, including differential counts, should be made at least every other day. If there is a drop in the white blood count out of proportion to that expected from the progress of the illness, and especially a decrease in the percentage of the granulocytes, the drug should be stopped and fluids forced.

In this connection it should be remembered that some infections, particularly those which seem to be overwhelming, may be accompanied at the start by a low white blood count. This is no contraindication to using sulfonamides. Rather, it is one of the surest indications that the drugs are needed if effective against the illness in question, for the patient's body is not responding to the infection. The blood must be followed carefully in these cases.

For brevity the less common toxic reactions are not being discussed in this paper.

It must be remembered that sulfonamides placed in wounds or in the peritoneal cavity are rapidly absorbed, that temporary high blood levels may follow and toxic reactions may occur, which are no different from those observed when the oral or intravenous routes of administration are used.

It is obvious that all patients who are to receive sulfonamides can not be hospitalized. Likewise, it is evident that all patients receiving them will not have a daily urine analysis and a complete red and white blood count. The benefits of these drugs should not be limited to those who can afford hospitalization, or those who have a hospital in the neighborhood. We all know of circumstances in which these substances are lifesaving, whether or not the patient can be observed as closely as we would like under ideal conditions.

Once the decision is made to give sulfonamides, use a sufficient quantity without overdosing, and stop the drug when the patient has responded or when toxic reactions occur.

The sulfonamides are not to be used promiscuously. They are dangerous as well as lifesaving. Unless there is a clear-cut indication for them, they are better not given at all. They should not be used for illnesses which have less morbidity and mortality than the sulfonamides themselves have.

DISCUSSION

Dr. C. E. Briscoe (New Albany): I would like to ask about the use of sulfonamides in wounds, especially in skin diseases.

Dr. Ferry: The alkalis were given with sulfanilamide because a certain degree of acidosis results from the medication. Later it was suggested that the alkalis be used with other drugs with a view of increasing the solubility of the acetylated form in the urine. I have used them, but I am not positive how much benefit was received. In our office a good deal of sulfathiazole powder is used in wounds, and apparently it works very nicely. The amount of absorption from superficial wounds is small and the blood level is low. In some skin infections there is relief after the use of sulfathiazole ointment; on the other hand, some people are sensitive to it.

Dr. John MacDonald (Indianapolis): I would like to ask about the progress in the matter of the solubility of the sulfonamides in urea. It came to my attention a year or two ago, but I have lost all track of it.

Dr. Kenneth G. Kohlstaedt (Indianapolis): The idea was that if there was a block, by the administration of a solution of urea we were able to dissolve the crystals. We tried it in one case and the patient began to excrete urea, but I do not know whether that was it.

Dr. Don E. Wood (Indianapolis): Is there any sensitivity that develops after the intermittent use of the sulfonamides?

Dr. Ferry: I think that is true especially of sulfathiazole. They may have an alarming reaction on giving the second course. Likewise, some toxic reactions seem to carry over from one drug to another in the sulfonamide group. Or they may have considerable reaction in the first series, and have none the next time.

Dr. B. W. Marshall (Nashville): How about the use of the sulfonamides in scarlet fever?

Dr. Ferry: I think it has been pretty well proved that the sulfonamides have no particular effect upon the toxicity of scarlet fever, but the complications of scarlet fever respond well. So far as the course of scarlet fever is concerned, from a toxic standpoint I do not think that they have any effect.

ADAPTABILITY OF VARIOUS ANESTHETIC AGENTS TO CERTAIN TYPES OF OPERATIONS *

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The question of what type anesthetic agent to use for a certain operation is often asked of the anesthetist.

In order to answer the above question the anesthetist must consider the necessary operative procedure and the patient's general vigor. To evaluate the patient's condition and classify him according to the amount of risk involved, a complete case history must be obtained, including such factors as weight loss; attitude and cooperation of patient; his actual as well as apparent age; his resistance to infection; previous and present diseases, such as heart disease, tuberculosis, diabetes, renal disease, recent upper respiratory infections; whether the patient is hypo- or hypertensive, and the amount of shock or anemia present. Because each anesthetic agent reacts somewhat differently on the vital organs of the body, one can realize the importance of knowing the foregoing factors.

Regarding the operative procedure the anesthetist must know the field of operation, its approximate duration, relaxation required, pre-anesthetic medication, if administered, and if possible estimate the inevitable amount of shock usually associated with such procedure.

Local acting infiltration anesthetic drugs are especially safe and should be the first choice if the cooperation of the patient can be obtained and if they enable the operator to work safely. With such reliable dilute solutions as procaine, metycaine, and novocain there is practically no danger of a fatality. The addition of epinephrine, which is often used to improve the field of operation, should be avoided in the presence of hypertension, exophthalmic goiter, severe cardiac disease, or when the patient is extremely nervous.

Local agents are usually recommended in patients where there is pathology of the lungs, kidneys or liver, and also in the very elderly hypotensive patient and the debilitated infant with pyloric stenosis. If possible, a regional or local anesthetic should be employed when the patient is in shock, because he may be only semiconscious and even a very small amount of general anesthetic might cause a too deep state of narcosis.

The local agents are recommended in operations for removal of cataract, operations on the palate, dental surgery, and tonsillectomies in the adult patient. When it becomes necessary to lance peritonsillar abscesses the local infiltration method is advised, also in operations for diverticulum of the esophagus. Field block and regional anesthetics are recommended for laryngectomy and dissection of glands of the neck, and are sometimes used in appendectomy and thoracoplasty cases.

Some surgeons prefer local injections in thyroid operations when the goiter is easily accessible and not too much traction is required. In allowing the patient to speak during the operation, the recurrent laryngeal nerve is safeguarded.

Epidural anesthesia, which consists of injecting an anesthetic solution into the epidural space, is fairly safe because the solution cannot reach the brain. The anesthetist should exercise great care in administering the epidural anesthetic due to the proximity of the dural sac and the region's great vascularity. This anesthetic lasts about one hour and is especially recommended for cesarean section because the uterus contracts readily during its use. Epidural anesthesia is used in rectal conditions, examination of the bladder, and operations on the prostate gland. The low-spinal is also recommended for the above conditions. However, epidural can be used in cases such as lesions of the spinal cord, anemia, and elderly patients where the low-spinal is contraindicated.

Low-spinal anesthesia, which is one extending to below the abdomen, is being used more at present than the epidural, because of less chance of failure in its administration.

As the level of anesthesia reaches into the abdomen it is considered a high-spinal, and the depressive effects become more marked. However, the beneficial effect of ease of surgery and better repair may outweigh the increased danger of the anesthetic in such cases as intestinal obstruction, resection of the stomach, or other operations requiring considerable relaxation. Spinal anesthesia is also recommended in extreme cases of toxemia when cesarian section is contemplated, because of the following advantages:

> The pre-existing pathological processes are not aggravated; great muscular relaxation is allowed; uterine contractions are not slowed; only a minimum amount of blood is lost, and postoperative emesis is lessened.

When operating on the urinary tract spinal anesthesia is also recommended, since blood chemistry and secretion of urine are not interferred with.

Spinal anesthesia is beneficial if the patient is a poor risk due to respiratory infection. Other advantages are that fluids may be taken before, during, and after operation, and there is no struggle on awakening, and no mucus to be aspirated. The patient can cooperate in preventing postoperative

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atelectasis by deep breathing and assisting in moving.

Since acute alcoholism usually harms some vital organs, such a patient cannot withstand lack of oxygen, and since the induction period is slow a spinal is often advised.

When drug addicts are being prepared for operation large doses of morphine are usually given, and for that reason it is necessary to guard against respiratory paralysis which may appear suddenly at the end of the induction period. In such cases the spinal anesthesia gives excellent results. If the patient is cyanotic preceding operation, due to recent sulfonamide therapy, it is advisable to use spinal block.

If the patient is already handicapped and cannot withstand a large single dose, the continuous spinal method may be used; this type of anesthesia may be employed over a prolonged period with good results. However, because of the technical difficulty of administration it is commonly used only when a large single dose is not adequate.

Spinal anesthesia is contraindicated for the markedly debilitated, especially if the hemoglobin is below 50 per cent. It is thought that there is a decrease of blood oxygen saturation of approximately 10 per cent with spinal anesthesia. This is due to a dilatation of the blood vessels and a muscular relaxation.

Spinal anesthesia should be avoided in cases of pernicious anemia which has produced pathological changes in the spinal cord. Since the dosage cannot be altered after injection, caution must be used in administering it to the poor-risk patient.

If the surgical procedure does not require more than fifteen to twenty minutes and if complete muscular relaxation is unnecessary, an intravenous anesthesia injection may be used. This is especially good in cases where postoperative vomiting is to be avoided. Some surgeons use this anesthetic in short operations on head and neck, or in operations for empyema in adult patients. It may be used when boils are lanced, fractures reduced, tendons repaired, bladder is examined and in short operations on the rectum. With the foregoing exceptions an anesthetist would not as a rule recommend intravenous injection.

In the presence of shock intravenous injection should be avoided due to slow recovery. If there is already a renal disturbance present, such injection should not be used as it must be excreted by the kidneys. In cases of liver dysfunction, intravenous injection should not be used because it is detoxified there. Its action is depressive on the respiration, and therefore such injection should not be used on the debilitated patient. It may even prove disastrous to far-advanced myocardial patients. Since the respiratory centers of children are easily depressed and the respiratory passages are small, anoxemia may develop with the use of intravenous anesthesia.

The two most popular drugs used are pentothal sodium and evipal.

Avertin, or tribromethyl alcohol, should be considered only as a basal anesthetic because of its depressive action when used in too large doses. If only a basal narcosis is required, as for some minor operations, avertin may be adequate. However, it may be supplemented by local acting drugs or inhalation anesthesia. It is being used frequently for children who are nervous and in toxic goiter cases to relieve apprehension. Avertin is contraindicated for elderly patients, since any depression of respiration over a prolonged period will induce complications, such as postoperative pneumonia or atelectasis. It is also contraindicated where there is rectal or colonic pathology.

When the local, basal or regional anesthetic agents are not adequate, they may be supplemented with the inhalation agents. All general anesthetics become more toxic in their action upon the vital organs with increased depth of narcosis. By combining small doses of several anesthetics and hypnotics, the effect of deep narcosis may be obtained without this toxic effect and is, therefore, suggested as the most ideal anesthesia for the majority of cases.

An example of a balanced anesthesia is as follows: At bedtime and one-half to one hour before operation the patient is given a sedative or hypnotic, such as morphine, scopolamine, nembutal, sodium amytal, or avertin. At the time of operation nitrous oxide, ethylene or cyclopropane is used for the induction; ether is then added in sufficient amounts to produce the desired relaxation.

If impossible to employ a combination, as previously described, ether is perhaps the safest of the volatile agents. Used alone, it produces adequate anesthesia for most operations, without causing marked depression of respiration or cardiac disturbance, which would further endanger the poor risk, such as the elderly, the anemic, or the patient with cardiac decompensation. However, the usefulness of ether may be outweighed by its dangers, which are irritation to respiratory tract and increased nausea and vomiting. In the prolonged ether anesthesia kidney and liver functions are impaired; however, they return to normal in forty-eight hours. Acidosis may occur as a result of using ether anesthesia and may become a serious matter in the diabetic or the child with severe vomiting.

Ether is suggested for splenectomies because the spleen will evacuate some of its red blood cells before it is removed.

In gallbladder operations ether seems to give the best relaxation.

When used following ethyl chloride induction during tonsillectomies, ether is quite satisfactory.

Cyclopropane has very little toxic effect when administered in a light plane of anesthesia. It is of value because of its smoothness of induction. Cyclopropane is also of sufficient potency that it

may be used alone when the procedure is of short duration, as in some appendectomy or herniotomy cases when very little relaxation is required. As the depth of narcosis increases, however, certain severe physiological changes take place, such as decreased kidney function, cardiac irregularities and cardiac failure, postoperative vomiting, and postoperative drop in blood pressure.

Since as much as 85 per cent of oxygen can be given with cyclopropane, it is of special benefit in certain types of operations. This gas is being used extensively for thoracic surgery, because such cases have diminished lung tissue with consequent decrease of ability to absorb oxygen. Cyclopropane is nonirritating to the respiratory tract and is usually of sufficient potency that ether need not be added. If a general anesthetic is required for the cesarian section, cyclopropane is advised because a large percentage of oxygen may be administered. In toxic thyroid cases cyclopropane is of value because of the increased amount of oxygen available for metabolism. In the anemic patient with respiratory infection or obstruction, cyclopropane is good. It is often used in diaphragmatic hernia when excursions of the diaphragm are to be limited.

Cyclopropane is applicable for the preceding operative procedures only if used in a light plane of anesthesia. It can be used to supplement spinal anesthesia in apprehensive cases and to prevent retching and vomiting during operation.

Nitrous oxide, which has been popularly used in the past, is now being replaced by other improved gases. It is relatively safe from a toxic standpoint when used for operations of short duration, such as teeth extraction, cauterization of the cervix or rectum, and in other operations not requiring extensive muscular relaxation. It is also frequently employed as an agent for induction, usually followed by ether administration.

Due to the impotency of nitrous oxide very little oxygen may be used, thus it is difficult to anesthetize some patients before a marked cyanosis, irregularity in pulse rate, cerebral injury, and liver impairment appear.

Anoxemia may produce elevation of blood pressure in the hypertensive patient, causing apoplexy.

Ethylene is a more potent gas than nitrous oxide, and therefore a larger percentage of oxygen can be added. Although producing more relaxation than nitrous oxide, it is insufficient for most major operative procedures. It may be used for the induction period, followed by ether. Ethylene has been found to be one of the least toxic of the gases. It is advised for patients with hypertension or when it is important to control pulse rate as in toxic thyroid operations. Patients in shock usually tolerate ethylene well.

The anesthetist should be careful to administer sufficient oxygen with ethylene, otherwise liver impairment may result.

Ethyl chloride, when used as inhalation anesthetic, must be administered with great caution. It may produce marked cardiac and respiratory depression and sudden respiratory paralysis. Ethyl chloride is used chiefly as an induction agent; however, it may be adequate for such minor surgery as lancing of boils and ears, and in dental surgery.

The usefulness of helium must not be overlooked in cases where respiratory obstruction develops during the course of the operation. Its use often eliminates the necessity of intubation. Helium, when combined with the anesthetic agent administered to the asthmatic patient, often enables him to breathe easier.

Intratracheal anesthesia is being used in operations of the cerebellum, substernal goiter, mediastinal tumors, perforating wounds, intrathoracic surgery and plastic surgery on the head. It is especially beneficial when operations are performed on the patient with angina pectoris, because it enables him to obtain more oxygen if necessary.

Any agent, whether local, regional or general, that interferes with intercostal respirations for a long duration increases the danger of postoperative complications.

It is important that the surgeon as well as the anesthetist should keep in mind that if deep narcosis is maintained over a period of time the vital organs may be severely damaged.

Even though the anesthetic agent is discriminately chosen, if the procedure requires an anesthetic of more than one hour's duration postoperative respiratory complications may arise proportionately. This has been proved by the study of postoperative respiratory complications.

Because of the fact that it is difficult to standardize anesthesia, the well trained anesthetist should feel free and have the privilege of administering the anesthetic according to the patient's changing condition.

Sometimes it may be necessary to completely change the method or agent during the operation, or it may be advisable to postpone the operation until the patient is in better condition mentally or physically.

In summarizing, the important factors to be considered in the choice of an anesthetic agent are: condition of patient, skill of anesthetist and surgeon, duration of anesthetic, depth of narcosis, and the optimum time for operation.

CHANGING CONCEPTS OF TUBERCULOSIS*

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SOUTH BEND

The past forty years have brought great changes in the practice of medicine. Seemingly unsurmountable difficulties in the fight against disease have faded rapidly before the advance in knowledge obtained by constant study and research. Several previously common diseases have almost disappeared, and man enjoys better health and a longer life-expectancy than he has ever known.

Progress in tuberculosis has kept pace with that in other fields. Indeed, changes have been so rapid that there is no textbook today which describes the subject completely. Three journals are devoted almost exclusively to discussion of this one disease.

Tuberculosis, which for centuries was called "The Captain of the Men of Death," has dropped from first to seventh place in mortality lists. This is no small achievement with a chronic disease for which there is no specific vaccine, drug, or serum. The medical profession and the public health agencies, working in close collaboration with the National Tuberculosis Association, are responsible for this accomplishment. The importance of the stimulation and support given by the voluntary organization can not be overestimated.

The factors which produced the gains made against tuberculosis may be classified arbitrarily as social and medical, although the relationship of the two groups is so close that no sharp line of separation is possible.

Elimination of bovine tuberculosis is one of the great achievements of veterinary medicine. Mass tuberculin testing of cattle, with the sacrifice of infected animals and pasteurization of milk, has rendered this type of infection almost extinct. Less than 0.05 per cent of tuberculous infections are due to the bovine bacillus. Its manifestations, such as scrofula and peritoneal tuberculosis in children, have become exceedingly rare.

Recognition of the prevalence of this disease among the poor has led to great social reforms. Campaigns to eliminate overcrowding, poor sanitation, and sweat-shop labor have often been introduced chiefly because these evils favor the spread of tuberculosis. The resulting gradual improvement of living and working conditions in this country has been one of the major contributions towards the reduction in mortality.

Education continues to be one of the most potent weapons in this fight. Sir William Osler's statement, "More mistakes are made by not looking, than by not knowing," is especially applicable to tuberculosis. First of all, physicians must be made and kept tuberculosis-conscious, for it is upon them that the burden of finding infectious cases must fall. The public, too, must be informed and reminded of the danger signs of the disease. Unless the patient can be taught when to seek help he may never ask for it.

One of the more significant developments of the past generation has been the organization of systematic case-finding programs. Recently emphasis has shifted from children to surveys of special groups where experience has shown the disease to be more prevalent. Some of the best examples of these groups are contacts with known cases, youths of high school and college age, negroes, recipients of relief, expectant mothers, and industrial workers. Incidentally, the present selective service examinations are proving to be the largest and most valuable case-finding program ever attempted.

The last and most important of the social factors in the control of tuberculosis is the construction of tuberculosis hospitals, most of them at government expense. Today there are more than 650 sanatoria in the United States caring for over 87,000 people. Many of these individuals recover and return to active life, but the chief value of the tuberculosis hospital is that it protects the public by isolating tuberculous patients while they are in an infectious state.

It would be folly to minimize the value of the preceding social factors, since they have operated hand-in-hand with improvements in medical care. However, they are limited in scope to prevention, while professional treatment must be responsible for the cure. At this point it would be well to recall that mortality and morbidity do not necessarily have a direct relationship. This proves to be the case with the decline of tuberculosis. While the death rate is less than 25 per cent of what it was at the turn of the century, the rate of infection remains at about 50 per cent of its former level. The difference is due to the greater effectiveness of modern treatment over methods of prevention.

Pathologists have long been aware that infection by the tubercle bacillus produced two kinds of response by the tissues. The first reaction is characterized by localized pneumonia with rapid lymphatic spread, and the establishment of a state of hypersensitivity to the protein products of the organism. As a consequence of this allergic state a new infection produces a more severe and destructive process, but there is less tendency to lymphatic or hematogenous spread.

When the allergic theory was first advanced the two reactions were known as "childhood" and "adult" tuberculosis. However, since it has been realized that the initial invasion may, and frequently does, occur late in life, these terms have

* Read before the St. Joseph County Medical Society on October 17, 1942.

† Superintendent of the Healthwin Hospital.

been discarded in favor of "primary" and "reinfection" tuberculosis.

The relationship of allergy to immunity is still a matter of controversy. Many attempts have been made to immunize animals and humans with protective inoculations of tuberculin and nonvirulent living bacilli, such as B.C.G., but all have failed. Certainly allergy is associated with immunity, but the relationship is not direct and the tuberculin test is not a measure of resistance. Much remains to be done before either state is clearly understood.

Another development of recent years is the recognition of anergy, or the loss of allergy. For example, if a lesion becomes completely healed and there are no longer any living bacilli within the body, the sensitivity of the host may disappear and a negative reaction to tuberculin may be obtained. This state of anergy is also observed, but not adequately explained, occasionally in terminal cases.

Diagnosis has become more simple during the past generation. While the modern phthisiologist has lost much of the art of physical diagnosis possessed by his predecessors, he is much more accurate.

The tuberculin test has increased in value with a better understanding of its underlying principles. A positive reaction in the young child has always been significant. Of course, the older the patient, the greater the possibility that he has been infected long before the test was given. However, fewer positive reactors are found among adults now that the rate of infection has decreased. Consequently, tuberculin is becoming a more valuable diagnostic agent in adults than it was when tuberculosis was almost universally prevalent.

Various modifications of the tuberculin test are used: the Mantoux (intradermal), the Pirquet (scratch), and the Vollmer (patch). Of these, the Mantoux performed with at least two strengths is the most reliable. P.P.D. (Purified Protein Derivative) has the advantage over old tuberculin of permitting more unified dosage because of its stability.

The single indispensable tool in detecting and judging the course of pulmonary tuberculosis is the x-ray. It has removed guesswork from diagnosis. It should be emphasized that no opinion as to the presence, or more especially the absence, of tuberculosis can be given without a satisfactory x-ray read by a competent observer. A poor film, or an interpretation by an untrained person, is almost as bad as no x-ray examination at all. Recent improvements in the field of roentgenography have greatly increased its usefulness. The invention of the laminagraph or tomograph is so recent that body-section radiography is barely out of the experimental stage. By the use of this instrument it is possible to eliminate the shadows cast by overlying structures and bring out the detail of a single body plane. Within the last few years, 35 mm. and 4x5 films have reduced the cost of surveys to the point where the advisability of examining the entire population is being discussed.

Improvements in laboratory methods have also contributed much towards accuracy of diagnosis. Patients can no longer be classified as inactive or non-infectious when tubercle bacilli are not found in direct smears. The sputum must be concentrated, cultured, and inoculated into guinea pigs before it can be considered truly negative. If the patient does not expectorate, he should have a gastric lavage to determine if he is deliberately or subconsciously swallowing his sputum.

The sedimentation rate is still considered a helpful procedure in judging the progress of the disease. However, so many variable factors have been found to influence it that many no longer attach great significance to its results.

Among the most recently developed diagnostic procedures is bronchospirometry. Vital capacity tests have been done for years, but were not of much help in determining the function of individual lungs, an item of considerable importance in judging the indications for collapse therapy. Now, however, it is possible to introduce a rubber catheter into the bronchi in such a way that the function of each lung can be estimated separately from analysis of the respiratory exchange of gases.

The value of the bronchoscope as a diagnostic instrument in this field has become appreciated only recently. Bronchial lesions were hardly ever suspected ten years ago, but now they are known to be among the most common complications of the disease. Their effect upon pulmonary tuberculosis and the effectiveness of treatment is recognized.

A multitude of cures have been proposed for tuberculosis, just as in other conditions which have no specific therapy. The disease characteristically has a chronic course and spontaneous remissions and recoveries are not uncommon; consequently, the effect of treatment is difficult to evaluate.

We have just emerged from an era when overfeeding was the accepted practice, and now an article has appeared in one of the leading journals advocating undernourishment. Perhaps the pendulum is swinging the other way.

Tuberculosis is, of course, a fertile field for the present vitamin enthusiasts. All of the alphabetical groups, except possibly the fertility vitamin E, have shared the spotlight.

Climate, too, has received considerable emphasis, some praising the virtues of sea air while others were convinced of a peculiar benefit to be obtained by altitude. Everyone agreed that the air must be fresh, frequently to the point of freezing the patient. Now all but a few believe that the best air for the tuberculous patient is from the portion of the atmosphere nearest his home—and not too much of that.

The sun is unquestionably a great healer, particularly of dermatological conditions, but it has taken some time before the harmful effect of ultra violet rays upon pulmonary tuberculosis has become generally appreciated. Heliotherapy is grad-

ually being discarded, even in the treatment of bone tuberculosis.

Uncounted varieties of drugs have been proposed, ranging from all of the heavy metals to some of the noxious gases. All have failed to stand properly controlled clinical trial and the test of time. However, recently a series of interesting experiments have been done by Hinshaw and Feldman in an attempt to duplicate the spectacular effect of sulfonamides in other infections. While the results with their preparation, promin, were encouraging in guinea pigs, its action upon humans has so far been disappointing.

The basic principle of all treatment of tuberculosis has been, and remains, *rest*. Nothing has taken the place of rest, and all other measures are supplemental to it. Rest in bed, followed by a program of graduated increases in physical activities, is the keystone of modern therapy.

Collapse of the lung is the only active treatment which materially influences the course of the disease. The rational use of this type of therapy has been generally adopted, scarcely more than ten years ago. Fundamentally, it acts by relaxing and immobilizing the lung. Relaxation permits cavity walls to approximate and heal by fibrosis. Immobolization rests the lung and retards the discharge of tuberculotoxins into the blood stream.

Many surgical operations have evolved, and may be used singly or in combination. Treatment must be individualized, and the effect to be expected from each procedure balanced against the risks involved. As a rule, the simpler and less dangerous operations are tried first. If these fail, other more extensive and hazardous forms of collapse may be indicated. Usually the patient is given a trial of bed rest. If he improves satisfactorily, no collapse may be necessary. However, if there is no evidence of progress after a reasonable length of time, or if the disease becomes worse, phrenic paralysis, pneumothorax, or thoracoplasty may favorably alter the course. Frequently, it is desirable to improve a pneumothorax by severing adhesions that may be present, an intrapleural pneumonolysis. Other procedures have been introduced during the past few years which have been less widely accepted but are occasionally useful; they are pneumoperitoneum, extrapleural pneumonolysis with pneumothorax or wax plombage, Monaldi's transthoracic cavitary drainage, and various modifications of thoracoplasty.

CONCLUSION

In conclusion, it may be said that many changes have taken place in the field of tuberculosis since the beginning of the century. Social reforms and medical discoveries have succeeded in making considerable progress against one of mankind's greatest plagues. The continuous downward trend of morbidity and mortality indicates that the day may not be far away when this disease could be eliminated forever.

ABSTRACTS

AMA HOUSE OF DELEGATES MEETS JUNE 7

The House of Delegates of the American Medical Association will convene in Chicago on June 7, 1943, *The Journal* of the Association reports in its January 2 issue. This meeting will take the place of the ninety-fourth annual session of the Association, originally scheduled to convene in San Francisco in 1943.

On September 26 it was announced that the San Francisco session had been canceled because of the war demands on the time of American physicians, as well as the transportation problems involved. This cancellation is the third time in the history of the Association that such an action has been taken, the other two times in 1861 and 1862, during the Civil War.

The many significant problems confronting the medical profession because of the war, particularly those concerning the provision and distribution of physicians and the provision of medical services for the nation's civilian and military needs, will highlight the problems to be considered by the House of Delegates at its meeting in Chicago next June.

REPORT ON A FIFTEEN-YEAR STUDY OF RHEUMATIC HEART DISEASE

When rheumatic heart disease begins in childhood, 69 per cent survive childhood, 35 per cent survive adolescence, 18 per cent reach the age of 30, and 5 per cent live beyond the age of 45, Alfred E. Cohn, M.D., and Claire Lingg, New York, report in *The Journal of the American Medical Association* for January 2. "When the disease begins in adolescence," they say, "85 per cent survive this age period, 55 per cent reach the age of 30 and 21 per cent the age of 46 or more. When the onset is in the twenties, 23 per cent, and when it is after 30, 44 per cent survive the age of 45."

These findings are based on a study which occupied the authors continuously for fifteen years during which 3,129 patients with rheumatic heart disease were observed until death.

"The supposition is general that girls are more often afflicted than boys," the authors say, "but when so large an experience as this is available is appears that this is not the case—the two sexes are afflicted in equal numbers. There were 1,566 males and 1,563 females."

"Rheumatic fever," the authors say, "may begin at any age, but it usually begins in childhood, especially between the ages of 5 and 10 years. At 15, 70 per cent of persons afflicted have already acquired the disease.

"In youth, the onset of the disease is characterized by polyarthritis in about one-half and by carditis or chorea in about one-third. In adult life, the onset is characterized chiefly by polyarthritis and, with advancing age, by the appearance of valvular lesions alone.

"The mean duration of the disease is about 13 years; 50 per cent of patients die within nine years after onset but 25 per cent live more than seventeen years and 10 per cent for thirty or more years. . . .

"Of all cases of rheumatic cardiac disease, 65 per cent are to be found in childhood. In the remaining 35 per cent the disease is acquired at later age periods. In adolescence are to be found 56 per cent, the survivors from childhood plus those who have acquired the disease in this age period. In the age group past 45 are to be found only 16 per cent, of whom 13 per cent were first afflicted before and 3 per cent after age 45."

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FEBRUARY, 1943

Editorials

THE SUPREME COURT DECISION

The Supreme Court of the United States has sustained the conviction of the American Medical Association and The District of Columbia Medical Society on charges of restraining operations of Group Health Association, a Washington medical co-operative group. The charge was made that the two medical groups had violated the anti-trust laws. While our State Association is in no way connected with the case, the decision is of far-reaching importance to organized medicine throughout the country.

The decision was written by Justice Owen J. Roberts, generally considered as a conservative, and the decision was unanimously concurred in by the Court, Justices Jackson and Murphy not participating. Thus ends a long-continued legal battle, the final decision of which probably will have much to do with future activities of organized medicine.

We are not possessed of a legal mind, but our personal reaction, after having carefully read the full decision, may be briefed as follows:

The Court held that even though Group Health was a co-operative, it was operating in "the sphere of business"; therefore the efforts of the medical groups to restrain its operation was a violation of the anti-trust laws.

Justice Roberts said, "The fact that it is a co-operative and procures service and facilities on behalf of members only does not remove its activities from "the sphere of business." The Justice further stated that it "need not consider nor decide" the question whether the practice of medicine constitutes trade, under the Sherman Act. So that point, whether Medicine is a "trade," seems undetermined. However, throughout the decision frequent reference was made to "the business of Group Health."

We offer no comment on the decision; that matter will be taken care of by the American Medical Association. The fact is clear, however, that from now on we know our limitations in certain fields.

GEORGE W. CRILE

American Medicine again is called to mourn the passing of one of its great leaders, Dr. George W. Crile, of Cleveland. In many ways Doctor Crile was a monumental figure in American Medicine; one of its deepest students, a man of exceptional ability in making his expositions extremely clear, a good writer, and a highly skilled surgeon.

We have known Doctor Crile through a good many years; we have heard him address medical groups over most of the country and have noted that when he appeared on a program everyone in attendance upon that meeting was present.

It would be difficult to say just what might be the greatest contribution that Doctor Crile made to American Medicine — there have been so many of them. To us one fact was outstanding, that, in-so-far as was physically possible, Doctor Crile seldom turned down an invitation to address a medical organization, nor was it essential that it be a large meeting. On numerous occasions he has come to Indiana to address a regular meeting of some of our county groups. He was generous of his time and talents.

Doctor Crile did a great deal of writing, some of his output standing as a monument to his genius. During World War I he was in active service, and later on recorded many of his observations. We like to recall a gem of his—just a little book—"A Mechanistic View of War and Peace"; it was just Dr. George W. Crile, nothing more.

We could have used the services of this man for years to come, but we may regard ourselves as fortunate that his work is pretty well recorded in our medical libraries. Verily, a good and great man has gone.

YOUR COUNCIL

It would be both educative and informative if every member of the State Association would read and study the brief report, by our executive secretary, of the mid-winter meeting of the Council, printed elsewhere in this issue of THE JOURNAL.

Your State Association operates upon the most fundamental and truly democratic principles. The elected representatives of the county societies meet annually, or on special call, in a House of Delegates. This House of Delegates formulates the

policies and lays down the rules and regulations under which your Association functions. Within the limits of the powers delegated to it by your House of Delegates, the Council carries on the business of the Association. In turn, the Council functions, as to the multitudinous details, through its Executive Secretary and its Executive Committee. Further, the Council, through reports received from the Association officers and, also, from the standing committees appointed by your President, constantly has under study and intense scrutiny every state and national activity which in any way whatsoever, now or in the future, may affect the medical profession of this sovereign state.

Weighty indeed are the problems now before our profession. Many are imponderable in the extreme. Many seem unsolvable. Yet, all are seriously considered from the sole viewpoint of seeking for or guiding toward a solution which best may benefit the state membership at large.

The physicians who met at this meeting on January tenth all are men of maturity. All are experienced in the affairs of your Association. All are men of attainment in their respective fields. All are busy men. Yet, here they were, ten councilors, five Association officers, and thirty-two chairmen of state committees, each devoting all or a major portion of a twenty-four-hour day to the discussion of the business and affairs of *your* State Association.

Their efforts are worthy of your every commendation. They need your support. As never before should it be, "all for one and one for all."

WARTIME INDUSTRIAL MEDICINE

The Advisory Committee on Industrial Medicine of the Procurement and Assignment Service recently suggested to the Procurement and Assignment Service and the American Medical Association that a program be developed to train physicians for war industries.

Following this suggestion, Dr. Clarence D. Selby, chairman of the Advisory Committee on Industrial Health of the Procurement and Assignment Service, and Dr. Carl M. Peterson, secretary of the Council on Industrial Health of the American Medical Association, requested the Indiana State Medical Association, during its annual meeting at French Lick, to develop a program designed to meet the objectives outlined. To that end the Committee on Industrial Health of the Indiana State Medical Association developed "Indiana's Emergency Educational Plan in Industrial Health." An outline of this plan, including the detailed program for the two-day session to be held in the auditorium of the Indiana University School of Medicine on Thursday and Friday, February 25 and 26, appears in this issue of THE JOURNAL.

This plan which is being pioneered here in Indiana received the all-out enthusiastic approval of the Council on Industrial Health, whose chairman is Dr. Stanley J. Seeger, during the Fifth Annual Congress on Industrial Health at Chicago last month. In fact, led by Colonel A. J. Lanza, of the Surgeon General's Office, the Congress spent a large part of its annual round-table session discussing the Indiana plan for training physicians in the industrial health field during the war.

The State Committee on Industrial Health, whose chairman is Dr. E. S. Jones, of Hammond, and Dr. Louis Spolyar, director of the Bureau of Industrial Hygiene of the Indiana State Board of Health, who arranged for Government funds for the conference deserve "kudos" for an outstanding bit of work. Through their efforts some dozen speakers, the leaders in the industrial health field throughout the country, will come to Indiana to conduct the two-day introductory program February 25 and 26, which will get the plan under way. This affords an unusual opportunity to any physician in Indiana interested in the industrial field, who is not subject to service with the armed forces, to receive training in this increasingly important sphere of medical activity.

TYPHUS AUTHORITY IS GUEST OF THE MEDICAL CENTER

The faculty and student body had a rare treat on the evening of January eighth when they had the privilege of listening to Dr. M. Ruiz Castaneda, founder of the Typhus Laboratory of Mexico. Dr. Castaneda was a close associate in typhus research of the late Dr. Hans Zinnser. His primary interest in recent years has been the development of a successful vaccine against this very dangerous epidemic disease. It is his opinion that his new vaccine, made from the lung tissue of the rat, is not only cheaper than other vaccines made to date, but is much more concentrated and, therefore, more effective.

Typhus is a disease about which we in Indiana are comparatively little informed. It is very possible that we shall be compelled to become more familiar with it in the next few years, as there seems to be a definite increase in the United States, particularly in the Southern States. A rather similar disease is also on the increase in our part of the country, namely, Eastern Type Spotted Fever.

Doctor Castaneda brought out some very interesting points with which we were only slightly familiar. Primarily, this type of disease is in that group of animals known as the "arthropods." To this group belong the insects and ticks. The disease can then be transmitted to rats by the bite of such insects as fleas. Occasionally then, the disease is transmitted by fleas to man, this being what is commonly known as "endemic typhus" which is sometimes observed in this country. At this point the body louse can come into the picture and really

make a very dangerous situation because it can transmit the disease from man to man upon which event the virulence of the organism becomes enhanced and the disease now becomes epidemic typhus which, of course, is one of the worst plagues known to man. Typhus is a disease associated with dirt, bad housing, squalor and misery because under these conditions human resistance is low and lice tend to flourish.

Many interesting scientific points were brought out. For example, the germ of the disease, *Rickettsia prowazeki*, has often been found difficult to culture or stain from the lesion. This is due to the fact that as soon as the lesion of the disease definitely develops, the organism has died out from that area because the organism can live only when the temperature is body temperature or slightly below. Fever temperature kills it off quickly except in those parts of the body exposed to the air, particularly cool air. The germ lives in the skin where it causes lesions in the endothelial lining of the capillaries. The petechial hemorrhages in the skin which are so characteristic of the disease are due to injuries to the capillaries. The giving of cold baths for treatment is contraindicated for the reason that the organism flourishes at a temperature somewhat below that of the body temperature. This possibly explains why it would be true that typhus is more severe in colder climates and in the cooler seasons, although it can occur in warmer times.

We are deeply indebted to the distinguished visitor from South America for a most interesting and instructive evening. It is to be hoped that many other such contacts with the medical profession of our Sister Republic of the South can be arranged.

DISLOCATIONS IN WARTIME

Association headquarters has sent to the component county societies a questionnaire regarding the number of medical men in those communities who are willing to be "dislocated" for the duration. This is in keeping with the program announced by the Procurement and Assignment Service, which has been endorsed by the American Medical Association. As of January ninth, the American Medical Association announced that more than three hundred physicians already had signified their willingness to take part in this program, ready to take any assignment at any place in the country.

As is pointed out by *The Journal of the American Medical Association*, certain medical groups might well be expected to sign up for this service, particularly the men under thirty-seven who have been found physically unfit for Medical Corps service, yet who are able to carry on in the practice of medicine.

Then there is the older group, men well above the age limits set for Medical Corps service; many of these men would "fit in" with such a program.

Medical authorities are generally agreed on two things: that there is in some places an unbalanced medical care program, and that there are enough physicians available to meet this situation. Therefore, there remains but one thing to do to equalize this balance, which is just what the present program seeks to do. Of course, it is no easy matter for a physician to "pull up stakes" forthwith and re-establish himself in another community; there are numerous considerations to be regarded in the making of such a move. But we must also bear in mind that in times of a total war there are many things we will have to do, things that perhaps are very uncomfortable to consider.

It would be well to bear in mind that "Manpower," is just now a rather popular phrase about the country; official Washington has gone into this Manpower thing in a big way, and it is our belief that said official Washington means to do something about it.

Manpower means just that; it means the consideration of what every ablebodied citizen, man and woman, can do in the furtherance of the war effort. This, of course, includes the professions, and if official Washington so chooses, they can—and probably will—exercise every right given them under the Act.

The members of the medical profession continue to be offered the opportunity of handling medical problems as they deem best, and in this instance it seems that we are asked to see what we can do about the solution of the problem.

To us it seems that the medical man under forty-five who is not in service owes it to himself and to the profession to most seriously consider this question, "What should *I* do?" The answer is very clear; that man should set himself down and do a lot of serious thinking. We of the medical profession have before us another one of the many big jobs that have arisen during this war. To date we have answered every one of them, the answer having been satisfactory to most everybody concerned.

We do not want a "Manpower Draft" for civilian medical service; in that we believe every physician will agree. But we do want to meet that need; we have available the necessary medical service—and it is merely a matter of distribution.

Are your 1943 Dues Paid?

Delinquency begins

February 1, 1943.

YOUR INVESTMENTS

Along the first of the year many physicians begin casting about to see what best can be done with extra funds in their possession. Stocks, bonds, real estate and whatnot heretofore have attracted most of this attention. The year 1943, however, presents a different problem. Many such investments are found to be poorly paying ones, some are no longer considered safe; there are many other drawbacks to the investment markets of today.

We would again call your attention to the best of all current investments, War Bonds. First, as a matter of safety War Bonds afford the safest of investments today. Just so long as the United States functions as a government, just that long will your bonds be a safe investment.

Not too long ago the "Gloomy Gus" element of the country was sorely frightened by the trends of the war; many folk were more than jittery about the outcome. True it is that for a time — and that time measured by the number of days and months necessary to get our war production going — things were not so rosy; the enemy seemed to be gaining this and that position, all the while more than disconcerting our forces both on land and sea. However, in more recent months we seem to be "clicking." With a high degree of regularity our war bulletins give more encouraging news. We are winning here; we are winning there; we are getting men and materiel distributed where they seem to be most needed, and our men are making proper use of this materiel.

Our Russian Allies are making history, they have the Nazis more than worried. Italy finally has reached the point where she is about ready to admit a high degree of sorrow that she ever was misled by the Austrian paperhanger, and it freely is predicted that the day is not far off when Italy will be more than willing to consider a separate peace. Japan is beginning to wonder.

But all this costs money — money no longer estimated in millions, but *billions*. Right off the bat, so it seems, the Seventy-eighth Congress is to be asked for an appropriation of *one hundred nine billion dollars*. And these dollars will have to come from but one place—from the American people. Some of it will come in the form of loans, much of it *must* come from the pockets of the American people. This is no time to "back down." We have millions of our boys on foreign shores and on foreign seas; we will have millions more there during the next few months — and these boys, these ships and all this materiel must have our continued support. And we can best do this by *lending* Uncle Sam our idle dollars, together with some that are not idle. We must make some of our dollars idle, some of those dollars formerly spent for things not vitally necessary.

All this is being pointed out to us very clearly, in many ways; our various rationing should serve as notice that Uncle Sam means business when he tells us that we have to cut down on various commodities that once were regarded as commonplace purchases.

The financial picture of our nation is clearly drawn; it all sums up to the one thing — the rank and file of the nation must dig deep in their reserves and buy bonds to the absolute limit. We of this part of the country are just beginning to realize what this war means; our casualty lists have begun to reach our own communities; we have much more to do in the readjustment of our way of living, cutting out all expenditures not absolutely necessary and diverting these funds into *active service* via War Bonds. Let's buy and keep on buying. "Let's Keep 'em Flying!"

WARTIME PHILOSOPHY OF YOUTH

The Chicago Daily News, as of December 31, published parts of a letter written by Lieutenant Richard Evans, U.S.N., to his parents, Mr. and Mrs. Rockliffe Evans, of Chicago. During the past year we have read many war letters. We like to read these letters, since they express personal observations, and most of them come from our young men.

This letter, however, has more than intrigued us, especially so since the author is but twenty-five years of age. It is at once apparent that in his service of the past year he has been attentive; he has done considerable deep thinking, and he has made and recorded observations that deserve to be kept before us.

We believe our readers will agree that the "Philosophy of Life," as expressed herewith, strikes a new note; yet we must agree that the writer has based that philosophy on personal observations:

" 'Dear Mother and Dad,' wrote Lt. Richard Evans, U.S.N., out with the Pacific fleet, in a personal letter. 'As I write this, the anniversary of our "Armistice which didn't work" is just around the corner. As with every other holiday, it will pass for us unheralded and unheeded. The radio news tonight sounded a bit promising—an indication (Africa) of our forces at last beginning to roll. It seems as though it has been a long wait since Pearl Harbor. Funny, when you think of it, though, where this year has gone; just disappeared, past and future blended into and obscured by the present.

" 'It always seems to me that all of us are two people out here. The guy you were before the war seems like someone whose autobiography you've read. And yet, when a little hell breaks loose, you sit apart and watch your instincts take charge of your body. It's been a source of wonder to me, when a man crosses the border-line from fear to rage, and vice versa. It's also strange how detached from the war one can feel even though watching the flash of guns in the night and listening to the rumble of explosions.

* * *

" 'I suppose I've been fortunate in having a ringside seat at a number of shows. Generally speaking, I've been fortunate, too, while on the stage, though it hasn't been very pretty. Though only a year, sometimes it's

hard to realize the war hasn't always been going on. We spend quite a lot of time reading, when we can find anything to read. Some of the pre-war stuff is strange to read. Some of it sounds like "ancestral voices prophesying war," some scorning it, very little having reality.

" 'Sometimes I wonder how much our concepts of accepted values change, for change many of them do. Sometimes it's hard to remember what we're fighting for; sometimes there is so much clarity it hurts. Some have long since lost sight of the value of human life. One has to do that to some extent, though it's what we're fighting to uphold. It's no good to dwell on the loss of your own men and friends, and you hardly think of the enemy as human. Still, fighting men can be incomparably tender to their wounded comrades.

* * *

" 'The strangeness of my writing strikes me as I continue. No more strange is it than the situation in which circumstances of war have placed me. Oddities become commonplace, fantasy is truer than reality, the presence of the ordinary accessories of life and long accepted actions are often out of place.

" 'We watch a tremendous drama unfold, and live it, but, after it's over, how to bring living peacefully into focus is the problem. Some of the men are already doomed to wander, bewildered, when their trade of war shall be no longer in demand. The constant reaverment by men of their love for families, sweethearts and homes points the only solution I see. The vision of a man alone is apt to be so clouded by cynicism as to be unbearable. The eyes of someone you love only can bring you back.

" 'No one stays young at this business. One bitter taste of battle takes youth away. Sadness I expect to carry with me. Fear I accept, because it's a part of sanity. Knowing that at times you must live with fear, that's the only way to handle it. Looking at it that way, we still have hope and faith. Charity is something that compels, even toward captured enemies. Hope, I keep because of love for my parents, my sweetheart, my country and my God. I write this of myself, but I think these things to be the views of men. . . .'

* * *

"That is the philosophy of a man who has been fighting day and night in one of the most bitter areas of the war. He wanted to hear all the little details of home, life, of how his loved ones live now, and whether they are well, and what they think of the future as well as of the present. He writes to his parents because they are a part of him, and about himself because some blessing has made his life, whatever its value to himself and to the earth, the happiness and care of the woman he loves.

"It is printed here to try to give people some idea of not merely physical hardship, but the mental and emotional strain of the fighting fronts. Those who are aged in that strain and forged in its fires will be different men from the boys who left. Perhaps they can make a better world.

100% SOCIETIES

HUNTINGTON—G. M. Nie, Secretary

WELLS—G. B. Morris, Secretary

Editorial Notes

As we have been expecting, THE JOURNAL has received word from Washington suggesting that we reduce our number of pages to the extent of ten per cent. This order, it seems, applies to all publications; even our large daily newspapers are asked to participate in such a plan.

Dr. Roberts J. Masters, Indianapolis, is the recipient of a very high honor, that of having been named as secretary of the Section on Ophthalmology of the American Medical Association. This is a deserved recognition, since Dr. Masters long has been active in that particular field and has made many contributions to the subject.

We are glad to hear that a bill (H-B 155) has been introduced to take care of the present welfare setup. We refer to the instances in which bills for medical care of this group are presented to the county welfare department, the bills allowed, *and the check for same mailed to the welfare client.* If that person is wholly honest, he hands the check over to the attending physician; if not, well that is another story. We see no reason why payments should not be made direct to the attending physician.

There will, no doubt, be much objection raised to the proposed legislation in the matter of compulsory vaccination of children and war workers against smallpox. As a matter of fact, there are already several outbreaks of this disease within the state, to the extent that it looks like we were in for a "smallpox year" in the near future. The American people are a peculiar lot; they orate about public health, demand more and better medical service, yet yell their loudest when we propose a plan whereby epidemics of the smallpox sort may be averted.

Considerable interest is being expressed in the plight of a young Chicago medical man who failed to heed the call of the Procurement and Assignment Service, after he had been "cleared" by his local committee. It seems that his local board called him in for induction, and he now finds himself a private in the United States Army. Certainly, there has been enough publicity from medical sources to advise all physicians as to what might be expected of them. If a doctor simply ignores all these things, then finds himself a buck private in the Army, he is entitled to no sympathy on the part of anyone.

Down-state papers report that Base Hospital No. 32 probably will be called into service about February first. This means that some forty-seven doctors and seventy-two nurses will be called, adding materially to some of our medical care problems. No information is presently available as to where the unit will be assigned.

It seems that gas rationing for doctors has ceased to be a problem, the various rationing boards having seen to it that medical men have all the gas needed for their work. At the outset of the rationing program there was some misunderstanding here and there about the state, but it now appears that the whole problem is worked out and we will have all the gas we really need. However, it is well to bear in mind that this gas is to be used for professional purposes, not for pleasure jaunts.

Press reports indicate much interest in the fact that x-rays of our war casualties are almost immediately available. No longer does the injured man have to wait until he has been removed to a base hospital before an x-ray examination can be made. Thanks to the advances made in the matter of portable x-rays, these pictures are now made within a short time after the receipt of the injury. Medical men know about these things, of course, but newspaper folk are just now hearing about them and proceed to marvel about them.

One of the big problems facing the medical profession is that concerning post-war affairs; that these problems will be numerous, as well as weighty, is an assured fact. Some of these might well be under some degree of consideration now, although there are so many present-day problems occupying our attention. One thing to be said in favor of Hoosier Medicine is that we are always ready to come up with the answer, once a medical problem is presented to us, due to the fact that we long have been a forward-thinking group. A little of that forward-thinking is in order right now.

A most attractive program has been prepared for the opening of the Industrial Health Educational Plan, to be held in the auditorium of the Indiana University School of Medicine on February 25 and 26, 1943, under the direction of the Industrial Health Committee of the Indiana State Medical Association. In addition to many local authorities, nationally known speakers will discuss problems in this field. This two-day program will precede a three weeks' course to train Indiana physicians for places in war emergency industrial plants.

The Owen County Medical Society has announced a raise in their charges for professional services. Night calls, those made after nine p.m. are markedly increased. There should be nothing exciting about this, for it is certain that about everything we buy has been upped to the limit; our drugs and medical supplies have been boosted to wartime prices, so why not a "share the cost" increase in our fees?

The intern problem in many of our hospitals continues to be a most perplexing one. Not only do staff members find themselves looking after small details that formerly were left to the interns, but other major problems have to be met, such as emergency night service within the hospital. Mercy Hospital, at Gary, of late has had but one intern on regular duty, so the staff developed the plan of having one of the staff members remain in the hospital over night, that he might be available for emergency cases. Verily, these times of war have wronght changes in the habits of medical men!

Dr. Hugh A. Cowing has been reappointed as a member of the Muncie Board of Health, a position he has held for many years. Prior to that time Dr. Cowing served for several years as a member of the Indiana State Board of Health. Interest in this appointment is accentuated by the fact that Dr. Cowing has passed his eighty-second birthday. In a personal letter he writes, "Though slowed up in step at 82, life still holds me and spurs me with defiant challenge. It is a great privilege to live today, and work and leave it all with One whose plan is beyond the ken of man." It is refreshing to note the attitude of the older men in medicine of today; their nation at war, they all feel that they, too, can continue various war activities, thus contributing their part.

We note the publicized statement of the president of the Florida State Medical Association to the effect that too many doctors are now in military service; he is quoted as saying that some 30 per cent of those now in service could be dismissed. We cannot understand how the head of any responsible medical organization can make such a declaration. It is evident that he has not made even a cursory investigation of the matter, but probably has accepted the opinion of one of the United States senators from that state, who has led somewhat of a fight against the activities of the Procurement and Assignment Service. If this Florida medical official would contact Surgeon General McIntyre, U.S.N., he soon would learn of the advantages of having plenty of medical service for our boys in action.

Mount Vernon, down in Indiana's "pocket," has but three physicians remaining in home service. These men are busy, of course, and have evolved a plan whereby they may gain a little additional rest over the week-ends. The local paper carries the announcement that Dr. "A" will be on call one Sunday, Dr. "B" and Dr. "C" taking their turns at answering calls on succeeding Sundays. This appears a rather novel method of handling the situation, but it does seem to be sensible plan.

More than five thousand senior medical students will be graduated from American medical schools in March, this date being some three months earlier than the usual time for graduation. This is brought about by the "continuous session" now in vogue in most of our schools. According to the present plan, these young men will begin active internships immediately, either in our general hospitals or in the Army hospitals; practically none of them will immediately engage in private practice. Those who have been serving as interns—and their number is comparatively limited—during the past year will be at once available for induction into the Medical Corps of the Army.

KEEP IT THAT WAY

The following editorial comments appeared in a recent issue of *The Fairmount News* and warrant reprinting:

> More members of the medical profession are going into military service every day. Young doctors just out of medical school, doctors who have barely established themselves in the community, and long-established men who would soon begin to shift the burden of their practice to new partners, are donning uniforms. For the medical men remaining at home, the task will become gigantic. But one and all they are grimly determined that essential medical care will be provided to civilians.
>
> There are many ways in which the layman can help in this medical crisis. He can guard his own physical well-being by keeping regular hours and eating and sleeping properly. He can be tolerant if he is kept waiting for an appointment. And he should follow stringently the advice of his physician in order to return himself to full usefulness as soon as possible. These are the tangible ways in which the layman can help the doctor.
>
> In addition, there is a vast intangible aid that we can give our medical men. We can keep in mind the fact that they are a part of the system of private medicine that has doubled the span of life for the ordinary citizen in a comparatively few years. The doctors in the armed forces, just as the ones staying at home, spent years in training and more years interning because competence and efficiency are the very foundation stones of our medical system. There is no taint of "ism" or politics in their blood. The worst disservice we could do them in their absence would be to lend ear to crackpot schemes to inject political control of any form whatsoever into the medical profession. As it stands today, American medicine gives us the best care in the world. Let's keep it that way.

Comes now the "share your nurse" program, which in many instances might not be a bad idea. It occurs to us that often a nurse is not needed for constant attendance upon a patient, and that nurse might be of much assistance in another case.

According to the *Danville Gazette*, Dr. O. T. Scamahorn, Pittsboro practitioner for more than thirty years, is a forward-looking man. Seems that he has some question in his mind as to tires and gas in the future, so has set about making preparations for other means of travel. According to the news-story, Dr. Scamahorn located an old-time buggy, said to be the very last one purchased in his community. The buggy was quite well preserved and required but a bit of fixing up. Then he located a set of harness and proceeded to acquire a fast-stepping, high-stepping steed, so is all set, save for the buggy whip. The old whalebone whips are, of course, things of the past, but if Oscar can but locate one of the old "county fair" type of whips, all done up in fancy colors, et cetera, he will be all set for any eventuality.

The following editorial note which appeared in the *Indianapolis Star* of January 12, entitled "Indiana Doctors in War," again demonstrates the record set by Hoosier physicians:

> "Announcement is made that no more Indiana doctors will be taken into the armed forces until New York, Massachusetts, Illinois, California and Pennsylvania have filled their quotas. That is as it should be. Approximately one-third of the people of the country are in those five states. They not only should provide their quotas of men in the armed services, which they undoubtedly will do under the selective draft system, but should send their proportions of medical men to the war fronts.
>
> "Indiana has been a leader in all kinds of war enlistment activities. This state maintained an enviable record for many years as a source of supply for the navy seeking recruits. It continues to keep up its reputation on that score. The state ranked at the top in percentage of enlistments in the Civil War. It was a leader in the Spanish War and the first World War. The rush to get to volunteer for service in this war has been characteristically Hoosier.
>
> "The time has come to see that the state is not drained of its physicians while other populous states are lagging. The men at the front should have the best of medical care, but that should not be at the sacrifice of the people of Indiana and to the advantage of the citizens in some other states. The council of the Indiana State Medical Association is making plans for a further call for doctors. Older physicians and women doctors are to be instructed regarding industrial injuries and other problems now handled by younger members of the profession who are in line for military call.
>
> "It is announced that few more doctors will be taken from rural districts. There are also some industrial districts in which the physicians now available are overtaxed. The supply of doctors in this or any other state or country is limited. It should be utilized for the maximum benefit of all the people, including both those on the battle and home fronts."

President's Page

Physicians in the Armed Forces

Physicians who are members of the American Medical Association and its component societies have responded voluntarily to serve in the armed forces of the United States. By the end of 1943 there will be practically 40,000 of our members in the armed forces. This is a compliment to the medical profession of this country.

Physicians in Civilian Practice

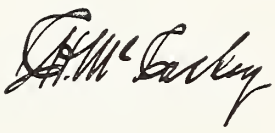
The physicians have not only done this, they have voluntarily given their time and service to the examining of inductees from the Selective Service Boards. They have continued to care for work assigned to them in the charitable institutions with which they are associated. Many of them have served on various rationing boards throughout the country; many are members of medical school faculties and are working the year around teaching in these institutions.

With practically one-third of our members in the armed forces, those who are left in civilian practice are doing at least 33⅓ per cent more work. This load will increase as age and death deplete the upper age-groups, for the reason that there will be very few of the younger men from the medical schools to replace these losses. These younger men, after serving one year's internship, will automatically be in the armed forces.

The medical profession in this country is doing, and has been doing, a tremendously fine job in taking care of the military and civilian life, and yet we ponder and ask, "Why are we pestered with a suit on the basis that we are a Trust, and why should certain groups in this country want to alter our present plan in the practice of medicine?" I don't know, do you?

Legislative Program

It has been definitely decided that no new legislation which is not essential to the war effort will be asked for during the present meeting of the Assembly. There are many interests associated with medicine. If there should be an attempt by any group to pass legislation which would be damaging to these various interests, we should make every effort to see that this type of legislation does not affect our satisfactory relationship with these groups. So, throughout the present meeting of the Assembly let us all be on the lookout for any type of legislation which is adverse to our present needs. When we are called upon by our Legislative Committee, let each of us consider himself a committee of one and be ready and willing to serve at its request.



In Memoriam

FRANK W. CREGOR, M.D.

Indianapolis

(1873 - 1942)

"Dr. Frank W. Cregor modernized the Indiana State Medical Association."

This tribute was paid Doctor Cregor recently by a physician who had worked with him, both professionally and in medical organization affairs, for many years. As one of the original sponsors of the proposal to establish the Bureau of Publicity in 1922, and as a member of the Bureau during the first three years of its existence, the present Bureau wishes to make a statement in regard to Doctor Cregor's contributions both to the Bureau of Publicity and to the Indiana State Medical Association. His activities as a leader in State Medical Association affairs began back in 1914 when he first served as chairman of the Legislative Committee of the state association.

Dr. Cregor

Although Doctor Cregor, as president of the Indiana State Medical Association in 1927, received the highest honor that can come to a physician from the state organization, his greatest work upon behalf of the public and the profession came as chairman of the legislative committee for the state association. He followed closely the energetic methods and procedures in public affairs advocated by Dr. William N. Wishard, whom Doctor Cregor succeeded as chairman of the state legislative committee and under whose chairmanship Doctor Cregor served on the Bureau of Publicity. Doctor Wishard laid the groundwork for our present laws governing the practice of medicine in Indiana. Doctor Cregor, serving as chairman of the legislative committee from 1914 to 1927, first saved the Act from attack by cultists through several hard-fought sessions of the legislature, and then in 1927 wrote the now widely copied injunction clause into the Act, thereby giving the law several fairly sharp teeth. In fact, the injunction clause in the Indiana statute has been used as a model by several other states which have amended their medical practice acts to bring them up-to-date and make them at least reasonably enforceable.

No field marshal ever laid his plans more carefully or worked more tirelessly than did Doctor Cregor in preparing his legislative campaign to write the injunction clause into the state's medical laws. Two years ahead of time he started his organization work. In the summer before the General Assembly convened he organized legislative meetings in each of the thirteen councilor districts and personally visited and addressed each district meeting, making long trips in an era when the highways were not always as good as they now are. Probably these meetings brought home to the individual physicians a realization of the value of the Indiana State Medical Association, and the need of an active and effectively functioning organization, more than anything had up to that time.

But the thoroughgoing preparation for the battle was merely the start. When the legislature convened, H.B. 39, containing the injunction amendment, was introduced. What followed was one of the hottest battles in Indiana legislative history, a history which throughout the years has been marked by hard-fought contests. After a series of unusually stormy preliminary test votes, H.B. 39 came up for the third and final reading on the floor of the House of Representatives. The vote was tied, the roll call was completed, the clerk was about to announce the indecisive result when into the chamber, reclining in a hospital wheel chair, guided by the hand of a trained nurse in white, came a representative who had been ill in the hospital

during most of the session. The convalescent held up his hand and checked the vote announcement. In a clear voice he stated, "Upon behalf of the health and the welfare of the people of Indiana, I vote 'aye' for House Bill 39."

Thus a dramatic victory was won by medicine due to the careful planning and organizing genius of Doctor Cregor. Before H.B. 39 passed the Senate, several amendments were accepted by Doctor Cregor, one being the licensing under a "grandfather" clause of all chiropractors who were then practicing in the state. Many physicians criticized this compromise by Doctor Cregor, but whether right or wrong the result has been the elimination of all cult legislation for the last fifteen years. Nor in that time has a single cultist been licensed in Indiana, and will not be licensed under the present statutes until their schools reach a standard that is acceptable to the State Board of Medical Registration and Examination.

Doctor Cregor was well prepared to act as legislative chairman, for he served a session in the Indiana Senate and possessed from practical experience the "know-how" in regard to such matters. Serving with Doctor Wishard for the first three years of the existence of the Bureau of Publicity, many of the principles, plans, programs, ideas and ideals of the Bureau can be traced to the close accord with which Doctor Wishard and Doctor Cregor worked on any problem, whether it was in regard to the legislature in particular or public relations in general. Both were sticklers for principles, but both were supreme realists in building effective working programs.

For many years Doctor Cregor served upon the Judicial Council of the American Medical Association. To this body was referred many complicated questions necessitating decisions in regard to ethical practices, interpretation of the constitution and by-laws of the parent organization, and problems involving the principals of medical ethics.

Recently Dr. Olin West, secretary of the American Medical Association, said, "Of all the men who served upon the Council, none ever had a clearer understanding of fundamental medical principles or a keener insight into their real meaning."

DOCTOR CREGOR SERVED THE INDIANA STATE MEDICAL ASSOCIATION IN THE FOLLOWING CAPACITIES:

1914-1915	Committee on Public Policy and Legislation, Chairman
1922	Committee on Public Policy and Legislation, Chairman
1923	Committee on Public Policy and Legislation, Chairman
1924	Committee on Public Policy and Legislation, Chairman
1924	Bureau of Publicity
1925	Committee on Public Policy and Legislation, Chairman
1926	Committee on Public Policy and Legislation, Chairman
1927	President
1927	Executive Committee
1927	Committee on Budget
1928	Committee on Budget
1938	Committee on Occupational Diseases, Chairman
1939	Committee on Occupational Diseases, Chairman

AMERICAN MEDICAL ASSOCIATION

1923-1933	Judicial Council, Member

In his presidential address in 1927, Doctor Cregor said: "There are medical laws which are of vital concern to our profession. I have in mind the regulation of medical practice in the state. The first great purpose of this law is to protect the public against the incompetent or fraudulent individuals who would exploit it. To this end the state has set up machinery whereby it can determine the fitness of any person seeking the privilege of treating the sick. Every conceivable effort has been made in the past to avoid the provisions of this law, and it has in every case been successful insofar as the unqualified have been concerned, and in reality has operated only to regulate those who have conscientiously conformed to its provisions. The last General Assembly amended the regulatory act whereby all are made equally amenable to its provisions, and Indiana now has a regulatory act which regulates. It is true that practically all legislation is the result of a compromise, and the present law provides for licensing all who have made any conscientious pretense to qualify. In the future, all persons who would engage in the solemn occupation of treating the sick must first satisfy the state that they are qualified in their knowledge of the human body and the diseases which affect it, and that is well."

Tireless work, organizing ability, a high regard for scientific medicine, will power—all, of course, enabled Doctor Cregor to succeed, but perhaps his efforts were effective in dealing with the public and the legislature largely because he constantly enunciated and was guided by the fundamental precept: "The medical profession of Indiana never has and never will appear before the General Assembly to ask for legislation which is not in the interest of the public health and welfare."

H. G. Hamer, M.D., Chairman,
Bureau of Publicity

K. R. Ruddell, M.D.
Ben B. Moore, M.D.
Thomas A. Hendricks, Secretary

EPIDEMIC KERATOCONJUNCTIVITIS

LOUIS W. SPOLYAR, M.D.
Chief, Bureau Industrial Hygiene, Indiana State Board of Health
INDIANAPOLIS

A severe, highly contagious form of conjunctivitis appeared among California shipyard workers in September, 1941. Since then similar epidemics have been reported in Michigan, New York, Connecticut, and North Carolina. To date Indiana has been free of this disease.

Because of its contagiousness and the lack of specific therapy, it becomes important for all physicians throughout Indiana to be on the lookout for this type of conjunctivitis, so as to prevent this disease from reaching epidemic proportions in this state. Since it is highly contagious, early diagnosis and isolation becomes imperative in the control of this disease. It is for this reason that this situation is brought to the attention of Indiana physicians. To illustrate the value of early diagnosis and isolation, a recent Eastern experience can be cited. An epidemic of eighty cases in the practice of one physician resulted from one unrecognized case and could have been prevented by early diagnosis and early institution of prophylactic measures. The causative agent is thought to be virus that is transmitted either by direct contact or by contaminated hands, instruments, goggles, or towels. Incubation period varies from seven to twelve days.

Clinically, one sees an edema of the eyelids, as the first finding. The edema gradually spreads to the palpebral and bulbar conjunctivae, and depending on the amount of secondary contamination one may or may not see a purulent discharge. If the conjunctivitis does not clear up within ten days, epidemic keratoconjunctivitis should be suspected. Following the primary edema and conjunctivitis one may see a pseudomembrane in conjunctival sac, involvement of the regional lymph glands and fever as later manifestations. Corneal opacities, as a late sequela, may occur in forty to seventy per cent of the cases. Some of the opacities will be permanent.

There is no specific therapy. The disease tends to be self-limited and may last as long as eight weeks, the average being two weeks. The prognosis is good as regards vision. For further information, please refer to the paper of Hogan and Crawford in the November issue of *War Medicine*.

To help establish a diagnosis, the following points may be of value:

1. Edema of one or both lids.
2. Moderately profuse lacrimation.
3. Acute follicular conjunctivitis.
4. Early involvement of lymph glands.
5. Negative culture.
6. Pseudomembrane in conjunctival sac.
7. Smear of conjunctival scrapings shows mixed response with predominance of mononuclear cells.
8. Development corneal opacities (Late manifestations).

To prevent the spread of this disease in Indiana, physicians should adopt the following:

1. Prepare to diagnose the disease.
2. Exercise meticulous care in technic, such as sterilization of all instruments, et cetera, used in eye cases, and insist on the *careful washing of hands by attendants between cases*. Sterilization of goggles if goggles are worn by other workers.
3. Isolate patients as soon as disease is recognized. Guard against contamination of other eyes.
4. Report the disease to the Indiana State Board of Health, promptly.

Research in the epidemiological and bacteriological aspects of the disease is now being carried on under the direction of Dr. Murray Sanders, Columbia University School of Medicine, 630 West 168th Street, New York City.

ABSTRACT: BRITISH MEDICAL PROFESSION OPPOSED TO TOTAL STATE MEDICAL SERVICE

A recent action by the British Medical Association indicates an overwhelming opposition of the British Medical profession to a comprehensive state medical service, *The Journal of the American Medical Association* declares in its December 19 issue. *The Journal* says:

"Further light on the attitude of the British Medical Association to the now famous Interim Report of the Medical Planning Commission is given by the votes on two resolutions that were brought up in the discussion of this report at the annual representative meeting of the British Medical Association. A motion with regard to medical service 'that provision, of whatever character, should be made by the government for the whole community' was, after considerable discussion, adopted by the very close vote of 94 for and 92 against. The effect of this was also immediately modified by the adoption of a 'rider' providing that 'the patient should have the right to contract out and the doctor the right to charge fees for attendance to patients not on his list.' A motion 'that the basis for the coordination and integration of health services should be the establishment of a whole-time salaried government service' was defeated by a vote of 20 to 177. This would apparently indicate an overwhelming opposition of the medical profession to a comprehensive state medical service."

Medicine Today

LABORATORY NOTES

This is the first of a series of short notes in which will be outlined various aspects of the use of laboratory tests. The increasing burden of medical practice makes it desirable to use all possible means to facilitate the care of patients, and the use of laboratory aids to diagnosis and management of cases may often save time if the tests are carefully chosen to suit the needs of the moment. These notes are obviously not more than suggestions. They are not intended to supplant either the use of textbooks or the consultation and advice of the pathologist. However, it is hoped that they may be useful as reminders, and that they may in this way help the physicians of the state in their work and save a few minutes of their precious time.

USEFUL LABORATORY TESTS IN THE MANAGEMENT OF SEVERE BURNS

A. *Tests of Primary Importance*

1. Total serum protein.
2. Hematocrit measurement.
3. Blood counts.
4. Blood typing.

B. *Additional Useful Tests*

1. Blood chlorides.
2. Serum albumin-globulin ratio.
3. Urinalysis.
4. Cultures.

DISCUSSION

A. *Tests of Primary Importance*

1. *Total serum protein. Normal range: 6 to 8 grams per 100 cc.*

   Serum protein is lost from the burned area into the adjacent tissues, often resulting in blood concentration. Blood plasma should be used to replace this loss. If hemorrhage has occurred or if anemia is present from some other cause, whole blood should be used. Serum protein estimation is the most accurate means of estimating the amounts of plasma to be administered.

2. *Hematocrit measurement. Approximate normal value: 50% cells and 50% plasma.*

   As noted above, the loss of blood proteins may produce hemoconcentration, and the degree of hemoconcentration may be measured by hematocrit estimation. This will reveal the relative proportions of the cellular and fluid portions of the blood. In hemoconcentration the percentage of cells is increased and the percentage of fluid is decreased. In anemia the percentage of cells is decreased and the percentage of fluid is increased.

3. *Blood counts. Normal range of erythrocytes: 4 to 5 million. Normal range of leukocytes: 5 to 9 thousand.*

   The red cell count is another means of determining hemoconcentration and may be used to regulate the amount of plasma to be given in hemoconcentration and the amount of whole blood if anemia is present. Leukocyte counts are of value in the detection and observation of the course of infections which may develop.

4. *Blood typing.*

   Transfusions of whole blood may be necessary in the treatment of severe burns if anemia occurs. It is important to determine the blood type of the patient so that donors may be secured quickly if they are needed.

B. *Additional Useful Tests*

1. *Blood chlorides. Average normal values: 600 milligrams per 100 cc. of plasma as NaCl. 350 milligrams per 100 cc. of plasma as Cl.*

   The blood chlorides may fall in severely burned cases. The general condition of the patient is more easily maintained if the blood chlorides are normal. The administration of sodium chloride may be regulated by repeated blood chloride determinations.

2. *Serum albumin-globulin ratio. Normal value: approximately 2 (of albumin) to 1 (of globulin).*

   When blood proteins are lost, albumin is usually lost more easily than is globulin. This results in a disturbance of the albumin-globulin ratio, with a resulting disturbance in the fluid balance of the body. Plasma or whole blood transfusions may be used to correct a disturbed albumin-globulin ratio.

3. *Urinalysis.*

   The examination of the urine is important in detecting the presence of renal infections or in revealing other possible renal damage.

4. *Cultures.*

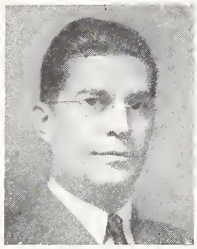
   Cultures may be helpful when burns are complicated by infections and may be used to direct specific treatment.

INDIANA'S INDUSTRIAL HEALTH CONFERENCE

February 25 and 26, 1943

Auditorium
Indiana University School of Medicine
Indianapolis, Indiana

Thursday, February 25, 1943



Rober A. Kehoe, M.D.

Chairman

Carl M. Peterson, M.D., Chicago,
Secretary, Council on Industrial Health,
American Medical Association

A.M.

9:00 **"Organization of Medical Services in Industry,"** EDWARD C. HOLMBLAD, M.D., Chicago, Illinois.

9:45 **"Pre-employment Examinations,"** FRED B. WISHARD, M.D., Anderson, Indiana, Delco-Remy Division, General Motors Corporation.

10:15 **"Criteria in the Evaluation of Abnormal Hearts,"** GEORGE S. BOND, M.D., Indianapolis.

—15 Minutes Intermission—

11:15 **"Comments on Sickness Absenteeism,"** A. T. COURT, Detroit, Michigan, Labor Economics Section, General Motors Corporation.

11:45 **"Women in Industry,"** M. H. KRONENBERG, M.D., Chicago, Illinois, Chief, Division of Industrial Hygiene, Illinois State Department of Public Health.

—Lunch, 12:15 to 1:30 P. M.—
Riley Hospital (Cafeteria)

M. H. Kronenberg, M.D

A. T. Court

Chairman

E. S. Jones, M.D., Hammond,
Chairman, Committee on Industrial Health,
Indiana State Medical Association

P.M.

1:30 **"Tuberculosis Control in Industry,"** A. G. KAMMER, M.D., East Chicago, Indiana, Inland Steel Company.

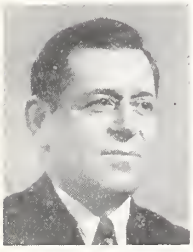
2:15 **"Syphilis Control in Industry,"** H. A. VONACHEN, Peoria, Illinois, Caterpillar Tractor Company.

—15 Minutes Intermission—

3:15 **"Legal Responsibilities of the Industrial Physician,"** ALBERT STUMP, Indianapolis.

3:45 **"Diagnosis, Treatment and Prevention of Industrial Dermatoses,"** LOUIS SCHWARTZ, M.D., Bethesda, Maryland, Office of Dermatoses Investigations, Division of Industrial Hygiene, United States Public Health Service.

Louis Schwartz, M.D.



Jacob Cholak

EVENING DINNER

Riley Hospital

Chairman

Carl H. McCaskey, M.D., Indianapolis,
President, Indiana State Medical Association

P.M.

6:30 Dinner.

Thursday, February 25, 1943—Continued

P.M.

8:00 **"Industrial Hygiene in War Production,"** J. J. BLOOMFIELD, Bethesda, Maryland, Sanitary Engineer, United States Public Health Service.

8:45 **"A War to Win,"** CLARENCE D. SELBY, M.D., Detroit, Michigan, Medical Director, General Motors Corporation.

Clarence D. Selby, M.D.

Friday, February 26, 1943

SYMPOSIUM ON LEAD POISONING

Chairman
Fred B. Wishard, M.D., Anderson,
Medical Director, Delco-Remy Division,
General Motors Corporation

A.M.

9:00 **"Experimental Studies on Lead Absorption and Excretion in Human Subjects and Their Relationship to the Diagnosis and Treatment of Lead Poisoning,"** ROBERT A. KEHOE, M.D., Cincinnati, Ohio, Kettering Laboratory of Applied Physiology.

10:00 **"Measurement of Industrial Lead Exposure by Air Analysis,"** R. N. HARGER, Ph.D., Indianapolis.

10:30 **"Measurement of Industrial Lead Exposure by Analysis of Blood and Excreta of Workmen,"** JACOB CHOLAK, Cincinnati, Ohio, Chemical Engineer, Kettering Laboratory of Applied Physiology.

—15 Minutes Intermission—

11:15 **"Diagnosis of Silicosis,"** LEROY U. GARDNER, M.D., Saranac Lake, New York.

—Lunch, 12:00 to 1:30 P. M.—
Riley Hospital (Cafeteria)

Sumner L. Koch, M.D.

J. J. Bloomfield

SYMPOSIUM ON INDUSTRIAL INJURIES

Chairman
W. D. Gatch, M.D., Indianapolis,
Dean, Indiana University School of Medicine

P.M.

1:30 **"Essentials on First Aid and Later Management of Industrial Eye Injuries,"** E. O. ALVIS, M.D., Indianapolis.

2:15 **"Prevention and Treatment of Hand Infections,"** SUMNER L. KOCH, M.D., Chicago, Illinois.

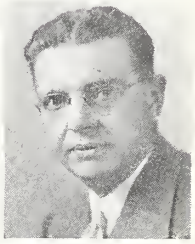
—15 Minutes Intermission—

3:30 **"Back Injuries,"** WILLIAM V. WOODS, M.D., Indianapolis.

4:00 **"Treatment of Burns,"** HAROLD M. TRUSLER, M.D., Indianapolis.

4:30 **"Treatment of Fractures,"** GEORGE J. GARCEAU, M.D., Indianapolis.

a. About ankle.
b. Supracondylar fractures of the humerus.
c. Compound fractures.



H. A. Vonachen

INDIANA'S EMERGENCY EDUCATIONAL PROGRAM IN INDUSTRIAL HEALTH

Developed By:

Council on Industrial Health, American Medical Association.
Indiana State Medical Association, Committee on Industrial Health.
Indiana University School of Medicine.
Bureau of Industrial Hygiene, Indiana State Board of Health.
Indiana State Chamber of Commerce.
Indiana Procurement and Assignment Service.

Purpose:

To develop a plan whereby the state committees on Procurement and Assignment and on Industrial Health may assist industry in solving industry's medical procurement problem. Further, the developed plan should be such that over-age physicians and those found ineligible for military service could be trained for employment in the medical departments of war industries.

Indiana's Plan Predicated on the Following Points:

1. Roughly, 80 per cent of Indiana's industry is serviced by part-time physicians.
2. The caliber of work of the part-time physician could be improved by additional training at this time.
3. The part-time physicians will in all probability serve as a "pool" from which to draw any needed "full-time" physicians as a result of the war effort.
4. That a more intense and better prepared program can be offered to a group rather than to a single individual.
5. That some program is developed to train a single individual, if necessary.
6. That the greatest loss of time is due to non-industrial diseases.

The Plan:

Based on the above points the plan envisages two distinct needs for the proper development of an emergency educational program in industrial health. The first need is the training of our part-time physicians, and the second need is to supply industry with trained medical men when industry requests this service.

To supply the first need an intensive post-graduate course is being planned, open to all men doing industrial medicine. This course is to be given by nationally known men and will last approximately two days.* A committee has been appointed to make arrangements for this course.

To supply the second need a three-weeks' course has been prepared to train from one to a group of trainees at any time. The tentative outline of this course is as follows:

I. *General*
   A. Course to be three weeks duration
      1. First week—Didactic lectures—in Indianapolis
      2. Second week — Field studies with State Bureau of Industrial Hygiene
      3. Third week — Assignment of trainees to plants doing comparable work with well-established plant Medical Departments
   B. Training to be a function of
      1. State Medical Society
      2. State Medical Schools
      3. Private Industry
      4. State Bureau of Industrial Hygiene
      5. State Labor Department
   C. Training to comprise fields of
      1. Administrative aspects of industrial health
      2. Industrial hygiene and toxicology
      3. Industrial medicine and traumatic surgery
      4. Training to be flexible enough to teach one trainee or twenty
II. *First Week—Didactic Lectures—Lectures to be forty-five minutes*
   A. Administrative aspects of industrial health—(1/3 of time)
      1. Lectures on (2 days—5 hours each day—9:00 a. m. to 3:00 p. m.)
         a. Location of the medical dispensary and equipment
         b. Duties of industrial physician
         c. Functions of medical service —physical examinations
         d. Medical relationships in industry
         e. Administration medical department
            1. Records
            2. Sick absenteeism
            3. Nurses orders

         End of first day

         f. Investigation accidents
         g. Workmen's compensation laws
         h. Rehabilitation programs
            1. Disabled
            2. Syphilitic
            3. Aged

* For details see program on pages 90-91 for sessions to be held February 25 and 26, 1943.

i. Nurses in industry
j. Services available to industry
1. Official agencies
2. State Medical Society
3. Medical schools

End of second day

B. Industrial hygiene and toxicology
1. Lectures on (two days)
a. Plant surveys — value of to physician
1. Identification of exposures
2. Control of exposures
3. Maintenance
4. Good housekeeping
b. Plant sanitation and hygiene
1. Water supply
2. Waste disposal
3. Illumination
4. Ventilation
5. Noise abatement
6. Toilet and washroom facilities
7. Nutrition
8. Recreation and housing
9. Fatigue and hours of work
c. General toxicology
1. Classification
2. Safe limits
3. Industrial epidemiological technique
d. Pneumoconiosis
1. Silicosis
2. Asbestosis
e. Industrial dermatitis

End of third day

f. Lead poisoning
g. Noxious gases
h. Excessive heat
i. Organic solvents
1. Trichlorethylene
2. Benzene
3. Naphtha
4. Kerosene
5. Toluol
j. Neuropsychiatric aspects of occupational diseases
k. Engineering control methods

End of fourth day

C. Traumatic surgery
1. Lectures on (two days)
a. Treatment of burns
b. Injuries to hand
c. Injuries to eye
d. Back injuries

End of fifth day

e. Injuries to the foot
f. Hernia
g. Chest injuries
h. One session on correlation entire course

End of sixth day

III. *Second Week—Bureau of Industrial Hygiene* (five-days)
A. Plant studies with staff—two to three days in field
B. Review pathological material and x-rays —one day
C. Demonstration of field equipment
D. Demonstration of dust counting
E. Laboratory procedures
1. Chemical
2. Medical—performance of common tests
F. Demonstration of engineering and medical control methods
G. Review of actual field studies done in the field
H. Further reading

IV. *Third Week—Assignment to plants** (five days)
A. Possible plants to use
1. Inland Steel
2. Allison Engineering
3. Delco-Remy
4. Servel
5. Studebaker (South Bend)
6. General Electric (Fort Wayne)
7. Carnegie-Illinois Steel
8. Standard Oil
9. Lever Brothers
10. Kingsbury Ordnance
11. Charlestown Powder Works
12. Indianapolis Industrial Clinic

Mechanics of Plan:

1. State Procurement and Assignment Service will have lists of physicians found ineligible for military service; the lists to be sent by the Federal Procurement and Assignment office or developed through reclassification of state forms.

2. State Procurement and Assignment Service to classify the list as to:
(a) Availability
(b) Training
(c) Desire of physician to enter industrial service

3. This classified data to be made available to the Committee on Industrial Health.

4. When requests from industry come to the state medical society, the request is referred to the Committee on Industrial Health.

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* Plan to have students visit more than one plant so as to get more information of how various industries set up their medical departments. This also gives students a chance to see the various "specialties" developed by some plants.

(a) The request and data on file are then referred to the *local* county Committee on Industrial Health. (All industrial counties have been requested to appoint committees on Industrial Health.)

(b) County Committee on Industrial Health contacts plant and informs management of the men available *locally*, suggests that management contact the men concerned and make all necessary financial arrangements with the physicians concerned. Local Committee on Industrial Health is to advise plant that a training program is available for the applicant, should additional training be needed. The local Committee on Industrial Health also should ascertain if a physician is actually needed on a full-time basis by this plant. Every effort should be made to meet the vacancy locally so as to reduce "dislocation" of physicians as much as possible.

(c) If local county committee cannot fill the vacancy locally, the problem is returned to the state committee.

(d) State committee tries to meet it on a state basis. If unable to do so, it refers problem to Council on Industrial Health of the A. M. A.

5. It is desirable to have the men "on the company payroll" when they report for training.

6. In addition to the functions outlined for the county Committee on Industrial Health, a "solid" industrial health program should be developed by the committee as a continuous activity of this committee. This type of program could help solve the problem of medical services for the small plant.

7. Notify industry of this new service offered by the State Medical Association so as to make it possible for industry to have every worker on the job every hour of every day—producing—instead of being "off" due to illness.

E. S. Jones, M.D., *Chairman*
E. B. Mumford, M.D.
V. E. Harmon, M.D.
L. S. McKeeman, M.D.
A. G. Kammer, M.D.
J. C. Burkle, M.D.
Charles A. Weller, M.D.

Compiled by Louis W. Spolyar, M.D., director of the Bureau of Industrial Hygiene of the Indiana State Board of Health.

ABSTRACT: POINTS TO SCIENTIFIC PROCEDURE IN UTILIZING MEDICAL MANPOWER

"If there is any one phase of the manpower problem that has been handled from the first with something resembling scientific procedure, it is the utilization of the medical profession," *The Journal of the American Medical Association* declares in an editorial in its December 19 issue. "We have always had a reasonably exact inventory of our medical assets. That inventory was made exact before Pearl Harbor. By the President's order a scientifically minded agency was established to distribute these assets properly among Army, Navy, industry and the civilian population. They recognized the need of the armed forces for a definite number of young, well qualified men. They recognized the desirability that industry be supplied with physicians trained in industrial medicine. They realized, indeed, that an expanded, speeded-up industry would require more men than were available and secured the cooperation of all volunteer medical agencies in attaining that objective by training additional men. They established a quota for the present of one physician to fifteen hundred civilian population, although we could go on to one to three thousand in many areas without touching prewar levels in those areas.

"The directing board of the Procurement and Assignment Service is doing its utmost to assure the maintenance of a continuing supply of physicians of a standard equal to that supplied in the past—and that has been the highest of any nation in the world. More than twenty-eight thousand physicians volunteered and gave their services without fee of any kind to the Selective Service boards. More than forty thousand physicians gave up their careers in civilian medical practice to serve with the armed forces. The directing board of the Procurement and Assignment Service for Physicians, its corps area representatives, its consultant committees, its state and county representatives, some hundreds in all, serve without one cent of remuneration. The hundreds of physicians on the consultant committees of the Division of Medical Sciences of the National Research Council and on the Office of Scientific Research and Development serve day after day at considerable sacrifice of time and income without one cent of remuneration. Throughout the nation thousands of doctors give of their time and effort in the agencies devoted to civilian defense, certifying the young and the old and the sick and disabled for extra fuel, gasoline and rationing of foods, and this service too without remuneration. Can any other profession or trade match this remarkable record of self sacrifice?

"Yet they have not had even the appreciation that is their due. Just recently the *Saturday Evening Post* carried a half-baked, incompetent, incomplete article on the shortage of doctors, apparently exalting the manner in which Great Britain has handled the problem. Neither the British nor the American situations are presented adequately. The press has carried the news of the attempts that have been made to toss the utilization of American medicine for the emergency into the arena of political football. Striving for political advantages, assaults have been made publicly on the motives, even the integrity, of the Procurement and Assignment Service and of the physicians who participate in its efforts. Fortunately for the American people, those efforts seem now to have failed. Serene in the confidence of the humanitarian, idealistic unselfishness of their work, they go forward even now planning scientifically to maintain for the armed forces and the people of America during 1943 and even during 1944 and 1945, if that should be necessary, a maximum personnel of high quality in the field of medicine, assuring to the people the best that medical science has achieved to keep them free from the fears of sickness, pain, disease and death."

REPRESENTATIVE RICHARDS SERVES PUBLIC WELL

Despite the universal appeal to keep all legislation down to the minimum required to further the winning of the war, more bills were dumped into the hopper the opening month of the eighty-third regular session of the General Assembly of the State of Indiana than during the first month of most previous sessions. This included the usual nuisance bills, such as those advocating the creation of separate boards for chiropractors, drugless healers and so-called "physical therapists." Indeed, judging from the first month of the legislature, it looks as if the cultists are gathering their forces for a supreme effort this year to break down the standards of medical education, feeling that they can take advantage of the situation when so many physicians are in service and those who remain at home are so busily occupied, taking care of civilian needs.

Renos H. Richards, M.D.

Therefore, it is fortunate that the leaders in both branches of the General Assembly are staunch friends of scientific medicine. Governor Schricker, Lieutenant Governor Dawson, who presides over the Senate, and Hobart Creighton, speaker of the House of Representatives, always have been understanding and wise advocates of sound medical legislation and outspoken opponents of any measures which, if passed, would undermine medical principles.

It also is fortunate for the people of Indiana in general and the profession in particular that Dr. Renos H. Richards, of Patricksburg, is serving his third consecutive term as a state representative. Doctor Richards, who represents Owen and Putnam counties, is the only physician in the General Assembly this year. Once again Doctor Richards heads the important Committee on State Medicine and Public Health in the House.

He is the son of Dr. Samuel D. Richards, who practiced medicine and surgery in Patricksburg for fifty-five years, and served as regimental surgeon in the 59th Indiana Infantry during the Civil War.

Doctor Richards graduated from the Indiana Central College of Physicians and Surgeons, Indianapolis, in 1903.

He has served as a member of the General Assembly in sessions of 1939, 1941, and 1943.

Doctor Richards has been a member on the following House Committees during his five years of legislative service: Education; Public Morals; Military Affairs; Mines and Mining; Benevolent and Scientific Institutions; State Medicine and Public Health (ranking member in 1939 session, and *chairman* during sessions of 1941 and 1943).

He has served two terms as coroner of Owen County and two terms as treasurer of Owen County.

He has been president of the Owen County Medical Society since 1936.

He is a veteran of World War I, having been a first lieutenant, Medical Corps, Indiana National Guard 1910-1915; captain in the Medical Corps, Mexican Border 1916-1917; major in the Medical Corps, A. E. F., France 1918-1919; and is now a lieutenant-colonel, Medical Reserve, United States Army.

Senator Davies Batterton, of Greensburg, for the second session in succession, is the chairman of the Public Health Committee in the Senate. Senator Batterton is a druggist and is intimately acquainted and deeply sympathetic with the views and problems of the medical profession. The other members on the House and Senate Committees are: Edward H. Beardsley, Elkhart; Dr. R. G. Brooks, Farmland; Howard V. Johnson, Mooresville; John W. VanNess, Valparaiso; John S. Gonas, Mishawaka; Jack O'Grady, Terre Haute; Henry F. Carey, Alexandria; Charles P. Ehlers, Indianapolis; Arthur F. Denton, Evansville; Carl A. Smith, Portland; Paul G. Moffett, Indianapolis; Frank J. Evans, Noblesville; Lloyd D. Claycombe, Indianapolis; Posey Cooper, Sellersburg; Otto C. Neumann, Lafayette; Timothy C. O'Connor, Frankfort; Fabius Gwin, Shoals; and Balthasar Hoffman, Valparaiso.

Some of the bills of special interest to the profession are:

S.B. 69 (Lucas and Fleming) Eliminates closed hospital staffs.

H.B. 11 (Henley and Lee) Physically handicapped employment bill.

H.B. 28 (Carey and Gwin) Chiropractic separate board bill.

H.B. 78 (Hunter, of Madison) Naturopathic and so-called "physical therapy" separate board bill.

H.B. 155 (Downey of Marion, and Henley) Provides direct payment for medical care to physician and hospital in welfare cases.

H.B. 192 (Claycombe) Non-profit Hospital Service Bill.

H.B. 187 (Baxter and Lowe) So-called "Physical Therapist Bill."

FEDERAL INCOME TAX RETURNS

WILL H. SMITH

U. S. Collector of Internal Revenue, District of Indiana

INDIANAPOLIS

The filing period for the year 1942 began on January 2 and ends at midnight on March 15. For your own interest, and to avoid the congestion in collectors' offices, it is urged that returns be filed as promptly as possible.

If assistance and advice are needed, call at the Internal Revenue Office, located on the third floor of the Post Office Building, Indianapolis, or at any of the branch offices located in the following cities: Anderson, Attica, Auburn, Bloomington, Bloomfield, Brazil, Columbus, Crawfordsville, Crown Point, Decatur, Delphi, East Chicago, Elkhart, Elwood, Evansville, Fort Wayne, Frankfort, Gary, Greenfield, Hammond, Huntington, Jasper, Kokomo, Knox, Lafayette, LaPorte, Lawrenceburg, Lebanon, Logansport, Marion, Michigan City, Monticello, Mt. Vernon, Muncie, New Albany, New Castle, Noblesville, Peru, Plymouth, Princeton, Rensselaer, Richmond, Rochester, Seymour, Shelbyville, South Bend, Sullivan, Terre Haute, Valparaiso, Vincennes, Wabash, Warsaw, and Washington.

Before preparing your returns, study carefully the instructions on the form. Assemble the data for filing the returns and keep all the memoranda after the return is prepared. Give full information in order that an intelligent audit may be made. A taxpayer who will give the preparation of his income tax return the utmost care and secure advice from the offices of the collectors on points about which he is doubtful will render the greatest aid to himself and his Government, for he will thus make the most accurate income tax return of which he is capable. You are aiding the Government to reduce cost when you are taking all possible precaution to file early and accurate returns.

WHO MUST FILE A RETURN? Every single person must file a Federal income tax return whose gross income for the year from all sources was $500 or more. Widows, widowers, divorcees, and married persons separated by mutual consent are classed as single persons.

Every married person, living with husband or wife throughout the year, must file a return if his or her gross income, together with any income of the spouse, was as much as $1,200 for the year. If husband and wife both have income, they must both make a return. Such return may be made separately, or, if they are both citizens or residents, they may make a joint return. A joint return may be made by husband and wife even though one has no income, and a joint return is advisable in the case of persons, one of whom has no income, who marry during the year, since the personal exemption attributable to each spouse during the period of premarital status is allowable in a joint return.

A joint return must be signed by both husband and wife, and verified by a written declaration that it is made under the penalties of perjury.

Where separate returns are filed by husband and wife on Form 1040, the joint personal exemption allowable ($1,200 where the married status has existed throughout the year) may be taken by either, or divided between them in any proportion agreed upon. If separate returns are filed, one may not report income which belongs to the other, but must report only the income which belongs to him (or her).

MEDICAL EXPENSE DEDUCTION: A new subsection is added to Code Sec. 23 to allow a deduction for expenses paid during the taxable year for medical care of the taxpayer, his spouse, or a dependent of the taxpayer, not compensated for by insurance or otherwise (including hospitalization insurance according to the Senate Committee report), if such expenses exceed 5 per cent of the taxpayer's net income (computed without this deduction). The amount deductible is only the excess over this 5 per cent. On a joint return, the 5 per cent is based on the aggregate net income of the husband and wife. The maximum allowable deduction on a joint return or the return of a head of a family is $2,500. The maximum deduction on returns of all other individuals (including separate returns of husband and wife) is $1,250 on each return.

The term "medical care" is broadly defined to include amounts paid for the diagnosis, cure, mitigation, treatment, or prevention of disease or for the purpose of affecting any structure or function of the body, including amounts paid for accident or health insurance.

PROFESSIONAL EXPENSES: A professional man may deduct all necessary expenses incurred in the pursuit of his profession. Because many professional men—physicians in particular—use their residences both as offices and as their home, it is sometimes difficult to draw the line between business expenses and personal expenses. A professional man may deduct as a business expense the rental value of the rooms occupied by him as an office if he actually pays rent; also the cost of light and heat furnished in these rooms. If he does not pay rent, but owns the property, he may deduct a pro rata part of the annual depreciation. So, too, he may deduct a portion, at least, of the

wages of domestic servants whose time is partly occupied in taking care of his office. The taxpayer should not forget that the wages of servants ordinarily include not only the actual cash payments made to them, but also the value of their food and lodging, light, and special privileges furnished to them. If the servant's time is occupied entirely with the care of the professional man's office, he may deduct all of the wages as an expense. Where an office is maintained apart from the home, the entire rent may be deducted, as well as the cost of light and heat, janitor service, telephone, stationery, et cetera.

A professional man would be justified in deducting the entire upkeep of an automobile used exclusively for business or professional purposes.

In computing net income, no deduction shall in any case be allowed in respect of personal, living, or family expenses. Insurance paid on a dwelling owned and occupied by a taxpayer is a personal expense and is not deductible. Premiums paid for life insurance by the insured are not deductible. The cost of daily transportation from the individual's home to his place of employment and return is a personal expense and, likewise, is not deductible.

Interest paid on loans, mortgages, or other indebtedness may be deducted. The only exception is interest paid on a loan to purchase or carry tax exempt securities. Whether the loan is for personal or business reasons is immaterial. Interest on life insurance policy loans may be deducted if payment was actually made during 1942. However, if the interest was merely added to the original loan, no deduction will be allowed until the loan is repaid. The proportion of each payment under an FHA mortgage which represents interest paid may be deducted. The FHA insurance premium may also be deducted—it is an additional required payment for the use of money. All state and local taxes, except estate, inheritance, legacy, and gift taxes, or assessments for local benefits, are deductible by the person upon whom imposed if he pays them.

The Bureau has held that the cost of uniforms of nurses, barbers, and surgeons is a personal expense and is not deductible.

DEPRECIATION ON EQUIPMENT: Under this heading will come libraries and equipment used in professional activities. The life usually applied to professional libraries is thirty years, while the life for scientific equipment used by dentists, doctors, et cetera, is usually ten years.

The "Victory Tax" and its application to the medical profession is covered in *The Journal of the American Medical Association* of December 5, 1942, in an article prepared by the Bureau of Legal Medicine and Legislation. We would suggest that every physician familiarize himself with the provisions of this amendment to the Revenue Act imposing a victory tax on individuals, amounting to 5 per cent of their victory tax net income.

ABSTRACT

CONTENDS SUBNORMAL BODY TEMPERATURE IS BETTER INDEX FOR THYROID THERAPY

"From a study of over 1,000 cases the results indicate that subnormal body temperature is a better index for thyroid therapy than the basal metabolic rate," Broda Barnes, M.D., Denver, contends in the August 1 issue of *The Journal of the American Medical Association.*

Basal metabolism is the minimal heat produced by an individual measured from fourteen to eighteen hours after eating and when the individual is at rest, but not asleep. It represents the energy expended to maintain life functions, such as breathing, circulation, body temperature, glandular activity, muscle tonus and other vegetative functions.

In the introduction to his report, Dr. Barnes explains that "Basal temperature is defined here as the body temperature taken under conditions which are usually considered as necessary for determining basal metabolism. That is to say, the individual should have had a good night's rest, no food for twelve hours and no exercise or excitement. Unless the patient is in the hospital or the test is run in the home a true basal metabolic rate is not obtained, for the exercise of dressing and going to the laboratory will have an appreciable influence on the oxidative rate. The half hour or hour rest is a poor compromise for basal conditions. This is not the most serious criticism of the determinations of basal metabolism, however. Many more errors are made when the patient is unable to relax because of nervous tension. Although the normal persons would not be excited by such an examination, the person needing such a test is not normal and many of them are unable to relax after repeated tests. . . ."

Dr. Barnes explains that nervous tension will elevate the body temperature and that it has been known for many years that the basal metabolic rate goes up as the body temperature rises.

"It is well established clinically that the hyperthyroid patient has an elevated body temperature," Dr. Barnes says. "Thus it appears from the experimental data and from clinical observations that body temperature might serve as an index of thyroid activity in hypothyroidism."

VOICE OF MEDICINE

Jan. 8, 1943.

Dear Editor:

Thank you for your kind letter about my paper.

I have had a pet idea for a long time. This is it, for whatever it is worth.

There are a considerable number of papers written in this state each year. A large number of them are above average in value. My suggestion is that an appeal be made to the men doing the writing to submit their papers to the State Journal first rather than to any other journal. In this way the State Journal would have the first choice of all the papers, and those of insufficient general interest then would be returned with the suggestion that they be submitted to publications of a special nature.

There would be some objection raised from those who consider it a particular accomplishment to get their writings in journals which are apt to be hard to make. On the other hand, if the article is sufficiently good, there is no question that it will be abstracted in other publications. For example, the article which THE JOURNAL published on prevention of post-operative phlebitis and embolism was printed a month or two later in the *International Medical Digest.*

I think that this policy, if generally accepted, would result in our JOURNAL being better and in time sought by others from other states.

Respectfully yours,

JOHN L. FERRY, M.D.

Dear Editor:

I want to call your attention to an editorial under the caption "Doctors and Gas." This article assumes that we are being rationed on account of gasoline *per se.* It certainly should be understood by all of us, after all this time, that rubber is being rationed—automobile tires, not gasoline. Everyone understands or should understand that we have all the gasoline in this country for everybody. Another reason for gas rationing is to save on transportation facilities, but the big issue is rationing rubber. It makes no difference how much gasoline is refined in Lake County and how accessible it is for those near by. Gasoline which is obtained near by will wear off just as much rubber as that obtained from Texas or Oklahoma, if used to drive automobiles for unnecessary traveling.

All the way through, the article assumes that it is gasoline rationing *per se.* There can be no controversy about this rationing when it is understood that it means tire rationing, because very few people will argue that we have abundant rubber. It is folly to trust our present-day human nature to voluntarily save very much rubber. It just won't be done—there is no such animal.

I do, however, wholly agree with the very timely advice and warning concerning the abuse of the special privilege allowed us physicians under our "C" card rationing. I agree that we should not make useless trips to see Aunt Mary one hundred miles down state or Uncle George in Iowa, or even too frequent trips to the club and theatre. The article would have us desist and forego these pleasures in order to save gas, but the real reason is to save rubber. The article, therefore, should be captioned "Doctors and Rubber" or "Doctors and Tires."

Very truly yours,

H. F. NOLTING, M.D.

UNDER THE CAPITOL DOME

STATE BOARD MODIFIES REGULATIONS

The Indiana State Board of Medical Registration and Examination last month modified some of its regulations in an endeavor to help meet the urgent problems created by the induction of a large number of Hoosier physicians into the armed forces. Another of the board's answers to the situation was the conducting of its first mid-year examination for medical school graduates seeking Indiana licenses. Heretofore only one examination has been conducted each year, in June; but under the revised schedule an examination will now be held approximately every eight months, thus permitting recent graduates to enter the practice or to enlist in military medical units several months sooner than would have been possible under the single-examination-a-year program which had been in effect since the creation of the board. The next examination will be conducted in September.

The board pointed out that its stepped-up program keeps pace with the accelerated schedule which has been put into effect by the medical schools of the country for the duration of the war emergency. The two-examinations-a-year program was inaugurated as a duration measure.

Wartime conditions resulted in action modifying a state board regulation relative to the licensing of applicants who are graduates of foreign medical schools. Previous to the modification, graduates of all schools outside the United States and its territorial possessions were required to repeat their senior year's work in an American medical school before they were eligible to take the Indiana license examination. That regulation was adopted on January 11, 1938.

The modified regulation now provides that the repetition of the senior year's work shall be required of "graduates of schools located outside the United States and its possessions, and outside of the Dominion of Canada" for the duration.

The first to take advantage of the modification were graduates of McGill University, located in Montreal, Canada, who were permitted to take the

January examination. In all, approximately 120 graduates of medical schools took the examination, including slightly more than one hundred from the Indiana University School of Medicine. Other schools represented included Harvard, Columbia, Marquette, Loyola, and McGill.

The examination was conducted by the full membership of the State Board of Medical Registration and Examination and was held in the assembly room of the Claypool Hotel on January 13, 14, and 15.

Following the January 12 meeting at which the wartime action was taken, the board announced that in order to cooperate in meeting the demands of the emergency, it had waived, for the duration, the practical examination required of reciprocal applicants from states that require a like examination.

Under this modification, applicants of other states may be granted reciprocal licensure in approximately two weeks, where practical examinations are not required. With practical examinations, it generally had required about three months for an out-of-state physician to obtain an Indiana license. The practice was to conduct three or four practical examinations each year.

Still another state board requirement was suspended for the duration; this was one that required one year of practice in the state from which the applicant reciprocates.

The state board said that in its opinion these modifications, which in no way lower the standards, will enable qualified physicians to obtain licensure more quickly than in the past, and will meet the demands of the emergency.

Deaths

Samuel H. Caraway, M.D., of Indianapolis, died December fourteenth, at the age of seventy-six. He graduated from the Medical College of Ohio, Cincinnati, in 1893.

* * *

Henry P. Metcalf, M.D., of Rushville, Rush County's oldest practicing physician, died on December fifteenth. He was eighty-six years of age. He graduated from the University of Louisville, in 1883. Doctor Metcalf was a member of the Rush County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

James M. Goldman, M.D., practicing physician in Monroe City and Vincennes for forty-five years, died December twentieth, at the age of seventy-four. He was a graduate of the Eclectic Medical College, Cincinnati, in 1896. He was a member of the Knox County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

George J. Geisler, M.D., of South Bend, aged fifty-five, died December fourteenth. He graduated from the New York University College of Medicine, New York, in 1915. Doctor Geisler was a past president of the St. Joseph County Medical Society, and was a reserve officer of the United States Army. He was a member of the St. Joseph County Medical Society and of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

Robert Hessler, M.D., aged eighty-eight, died at his home in Indianapolis on December seventeenth. He graduated from the Medical College of Indiana, Indianapolis, in 1891.

* * *

Bertha G. MacBeth, M.D., of Fort Wayne, died December fifteenth, at the age of sixty-nine. She was a graduate of the Fort Wayne College of Medicine, in 1905. Doctor MacBeth was a member of the Fort Wayne (Allen County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Ott Casey, M.D., of Clinton, died at Danville, Illinois, on December twenty-ninth. He was sixty years of age. He graduated from the Medical College of Ohio, Cincinnati, in 1908. Doctor Casey served overseas as a captain in the Medical Corps during World War I. He was a member of the Parke-Vermillion County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Mason B. Light, M.D., of Indianapolis, died on December nineteenth. He was fifty-three years of age. He graduated from the Indiana University School of Medicine, Indianapolis, in 1910, and had limited his practice to Otolaryngology. Doctor Light was a captain in the Medical Corps during World War I. He was a member of the Indianapolis (Marion County) Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

WHAT WENT ON DURING WORLD WAR I

(Items from THE JOURNAL of February, 1918.)

The scientific section carried two articles on hypertrophy of the prostate gland, one by Drs. W. N. Wishard and H. G. Hamer, of Indianapolis, and the second by Dr. Charles M. Mix, of Muncie. These papers had been read at the Evansville session and had provoked considerable discussion. The third article in this section dealt with complement fixation in the diagnosis and prognosis of tuberculosis, by Dr. Virgil H. Moon, of the Indiana University School of Medicine.

* * *

Editor Bulson wrote on several topics for his editorial section, among them being x-ray and radium therapy, the Wassermann test, twilight sleep, and comment on the current objection being raised as to research work in the Army. He went "all out" in his discussion of what he termed jealousy and peevishness among certain of the independent medical journals. He also took occasion to protest against any special favors in matters pertaining to medical legislation.

* * *

The editor stated that THE JOURNAL would be pleased to publish letters from medical men in the armed forces, concerning their work. (THE JOURNAL of today would be more than pleased to have similar letters from "our own folk" now engaged in military medicine throughout the wide world.)

* * *

It seems that we had "fuel administrators" in World War I, as well as at the present time, and that some folk were complaining long and loudly about the matter. The editor's comment was thus: "With some people patriotism and religion serve only during fair weather."

* * *

Announcement was made that the Eye, Ear, Nose and Throat Section would hold a special meeting in Indianapolis, March 6-7. The official call was signed by Drs. J. R. Newcomb, chairman, and E. M. Shanklin, secretary. This was the forerunner of the organization of the present Indiana Academy of Ophthalmology and Otolaryngology.

* * *

The editor again had much to say anent the Federal Income Tax, looming up just a month ahead. (In the intervening years we have become so accustomed to this tax that little attention is paid to the matter, we just pay what we are told to pay, and that is that!)

* * *

The Council of the State Association had passed a resolution to the effect that all local societies pay the dues of members who were in service.

Many of the medical men in service had complained about the cost of equipment, declaring that many dealers in official uniforms were "putting on the tariff" at a great rate. A number of these new officers were just out of college and had not had an opportunity to lay by ready cash, such as was needed for uniforms and various other equipment.

* * *

The Lake County Medical Society had adopted a new fee bill.

* * *

David Byers, the Indiana leprosy patient, had died January fifth, at his home in Fort Branch, where he had been under quarantine since the diagnosis of his case some two years previously.

* * *

F. E. Raschig, acting executive secretary of the Indiana State Medical Association, had addressed the Elkhart County Medical Society, explaining certain Federal laws that affected the medical profession. (Mr. Raschig, after leaving the Association, resumed his connection with the *Indianapolis Star*, where he is now serving as an editorial writer.)

* * *

The Federal Trade Commission had licensed three American firms to manufacture and market certain drugs heretofore covered by patents, the list including veronal and novocain, the latter to be officially known as procaine.

* * *

The Indiana State Board of Medical Registration and Examination had elected the following officers: President, Dr. J. M. Dinnen; Vice-President, Dr. A. E. Caine; Secretary, Dr. W. T. Gott; Treasurer, Dr. M. S. Canfield. The board adopted a resolution to the effect that examinations in the future would be written in the English language.

* * *

Medical students were to be known from then on as members of the Medical *Enlisted* Reserve Corps.

* * *

Membership, as of December 31, 1917, was 2,844, including 259 new members. The cost of operating the office of the executive secretary, for 1917, was $3,055.56, while the total JOURNAL cost paid, by the Association, was $2,001.75. (At that time Dr. Bulson published THE JOURNAL, it might be said, independently. The Association paid him seventy-five cents per member, annually.)

* * *

Several pages of THE JOURNAL were necessary to list appointments, assignments, et cetera, of members who were in the service.

Military News

Dr. Joseph H. Baltes, of Fort Wayne, was commissioned a first lieutenant in the United States Army Air Corps and was ordered to report for duty at Miami Beach, Florida.

Word has been received of the recent advancement of Dr. Frank B. Bard, of Crothersville, to the rank of captain. Captain Bard has been assigned to Company D, 306th Medical Battalion, 31st Infantry Division, A.P.O. 81, Camp Rucker, Alabama.

A former Peru physician, Lieutenant Ralph Barnett, is now stationed in the SAACC at San Antonio, Texas, where he is serving as a flight surgeon.

Lieutenant D. Bruce Brown, former Gary health commissioner, who is now stationed at the air base in New Orleans, was recently granted a short leave, during which time he visited with friends and relatives.

Lieutenant Commander N. B. Combs, formerly of Mulberry, is now a medical officer of the new naval flight preparatory school at DePauw University, Greencastle. He entered the service in June, 1942, and has since that time been stationed at the Norfolk Navy Yard at Norfolk, Virginia. At DePauw he will be in charge of the thirty-six bed dispensary to be established for the naval cadets.

Major George Dillinger recently visited his home town, French Lick, before going to Valley Forge, Pennsylvania, where he is now stationed. He had been at Atlanta, Georgia, prior to this time.

Two former Indiana physicians, Lieutenant Ramon B. DuBois of West Point, and Lieutenant George W. Herrold of Lafayette, were among those who recently graduated from the Medical Field Service School, Carlisle Barracks, Pennsylvania.

Dr. Joseph C. Dusard, former Bedford physician, reported that he has been transferred to the station hospital, Camp Claiborne, Louisiana. He was formerly at Camp Maxey, Texas.

Promotion from the rank of captain to major was given to Dr. Milton Erdel, formerly of Frankfort, a flight surgeon who was last known to be somewhere in England. The message received by Mrs. Erdel did not give the point of origin, but stated that Captain Erdel is well and safe.

A recent graduate of the School of Aviation Medicine at Randolph Field, Texas, was Dr. Robert H. Wiseheart, former Lebanon physician, who will be assigned as chief flight surgeon of a tactical group of pilots. He is now stationed at the San Antonio Aviation Cadet Center at Kelly Field.

Former Marion physician, Dr. Max Ganz, is now serving overseas with the United States Army, according to word received at his home. He is with the Fourth Field Hospital, A.P.O. 682, care of Postmaster, New York City.

A Decatur physician, Dr. Floyd L. Grandstaff, has been commissioned as a captain in the United States Army and was requested to report for active duty at Miami Beach, Florida, for training in the Air Force Officers' Training School.

Major Gordon H. Haggard, formerly of Indianapolis, is now stationed at Randolph Field, Texas, where he is attending the Aviation School of Medicine, having recently been transferred from Fort Meade, Maryland.

Former Logansport physician, Dr. W. W. Holmes, a veteran of the first World War, has been promoted from major to lieutenant colonel. Colonel Holmes is at Camp Croft, South Carolina.

A promotion from the rank of captain to major has been given to Dr. George Kress, formerly of Columbia City, who is serving in the Medical Corps of the United States Army at Little Rock, Arkansas.

Captain Jesse R. Logan, of Evansville, who is in the Medical Corps of the United States Army and now stationed at Fort Lawton, Seattle, Washington, has been appointed surgeon at the new staging area hospital there and took part in its organization and opening. Prior to this time he was stationed at Fort Benjamin Harrison and at Carlisle Barracks, Pennsylvania.

CAPTAIN EDWARDS IS GIVEN STAR FOR BRAVERY

Captain William F. Edwards, former New Albany physician who is now with the American forces somewhere in New Guinea, has been given a Silver Star for heroic action. Captain Edwards was on duty at an American field hospital, removing a piece of shrapnel from an Australian soldier when Jap bombers attacked. He continued to operate, and when the enemy had gone the patient pointed to a machine-gun bullet wound he suffered during the attack and suggested that Captain Edwards perform another operation, which he did.

Dr. Thomas L. Keefe, formerly of Logansport, has been appointed as Army registrar and is second in command to the commanding officer in the field hospital at Montgomery, Alabama.

Captain Charles L. Luckett, who formerly practiced at Boonville, is now serving with the armed forces in Africa.

Lieutenant V. F. McFall, of Anderson, is now stationed at the School for Aviation Medicine at San Antonio, Texas, according to word received in his home town.

Dr. Perry C. Traver, of South Bend, a colonel in the Reserve Medical Corps, was instructed to report for duty with the Army Medical Corps at Carlisle, Pennsylvania.

Former Indianapolis physician, Captain W. M. Mount, who was at the Station Hospital at Camp Shelby, Mississippi, for thirteen months, is now stationed somewhere near Alaska. He is the only medical officer for the medical detachment of the 250th Coast Artillery and has been on foreign duty since last May.

Captain R. S. McElroy, of Princeton, is now with the 97th Evacuation Hospital, Camp Shelby, Mississippi.

A commission of captain in the United States Army has been given to Dr. James M. McFadden, of Fort Wayne, and he was ordered to report at the Walter Reed Hospital, Washington, D.C., for a six weeks' course, after which he will be assigned to an evacuation hospital unit.

Lieutenant-Commander William E. Miller, of South Bend, is now in service with the Medical Corps of the U.S.N.R. at San Francisco, California.

Dr. Basil M. Merrell, formerly of Brownstown, has been appointed a major in the United States Army. Major Merrell has been transferred from Camp Shelby, Mississippi, to somewhere overseas.

SOMEWHERE IN THE SOUTH PACIFIC

Lieutenant William L. Green, M.C., U.S.N.R., formerly of Indianapolis, gives his present address as No. 285 Marine Corps, care Postmaster, San Francisco, California. We quote from his letter, as follows: "Well, I hope that things are moving along pretty well back home. We don't get much accurate information as to what is really going on, but I hope that by this time the people are finding out that we are really in one h—l of a war. If you don't think so, come see me sometime!"

Dr. John E. Owen, formerly of Indianapolis, has been promoted from the rank of major to lieutenant colonel. With the promotion Colonel Owen also became chief of the surgical service at Fort George Meade, Maryland, where he has served with the armed forces since last July.

Word has been received that Lieutenant Carl M. Porter, formerly of Jasonville, who was first sent to Fort Leonard Wood, Missouri, and then to England, is now serving in one of the Pacific battle zones.

Captain Donald C. Reed, formerly of Culver, is now ward surgeon in the Medical Department at the Topeka Army Air Base, at Topeka, Kansas.

Former Bloomington physician, Lieutenant-Colonel William C. Reed, is now in charge of all surgery at the Government hospital at Camp Shelby, Mississippi. He recently visited Bloomington while on an official trip for the hospital.

Commissioned a captain in the United States Army, Dr. Charles Richardson, of Rochester, was instructed to report at Fort Joseph Robinson, Arkansas.

Dr. William S. Robertson, of Spiceland, has been commissioned a lieutenant in the United States Naval Reserve. He has reported for duty at the United States Naval Training School, at Indianapolis, as medical officer.

Lieutenant Alexander T. Ross, former Indianapolis physician, who was stationed at Fort Benjamin Harrison, is now at the 36th Station Hospital, A.P.O. 3385 care Postmaster, New York City.

Dr. James R. McLaughlin, formerly of Logansport, who was stationed at Washington, D.C., is now at San Francisco, California.

General Hospital No. 32 recently established its first tradition as a Hoosier unit when it awarded medals to three of the seniors of the Indiana University School of Medicine who ranked highest in military subjects. The first-place gold medal was given to Gilbert Himebaugh, of Speed; the second-place silver medal to Daniel Bright, of Clinton; and the third-place bronze medal to K. A. Hill, of Paragon. Lieutenant Colonel C. J. Clark, head of the medical division of the unit; Lieutenant Colonel Charles F. Thompson, head of the surgical division of the unit; and Colonel I. F. Peak, head of the medical school R. O. T. C., took part in giving the awards. General Hospital No. 32 will continue to give awards to three seniors in each ensuing graduating class.

Dr. R. S. Yegerlehner, who holds the rank of lieutenant (jg) in the United States Navy, is now stationed on an island in the Pacific. His present address is Receiving Station, U. S. Naval Advanced Base, care Fleet P.O., San Francisco, California.

While on a one-week leave, Captain C. V. Rozelle, M.C., called at our office en route to his home in Anderson, and we learned that he is now Chief of the Surgical Staff at the Topeka Army Air Base, at Topeka, Kansas. We are always glad to see our Indiana physicians and to learn of their whereabouts.

Here is the first letter that we have received from Africa and it was sent to us by Dr. J. M. McIntyre, former Indianapolis physician:

"Just received the November issue of THE JOURNAL and must say that it was quite a thrill to sit in Africa and read of the various Indiana doctors and the convention 'doings.'

"Since leaving Indianapolis in June, I have been in San Francisco, Los Angeles, the California desert (temp. 120° to 130° F.), the East Coast, and finally Africa.

"Please use the above address as my new mailing address and keep THE JOURNALS coming!"

The following poem was written by Dr. Carleton B. McCulloch, of Indianapolis, Colonel, Medical Reserve. It was delivered at the welfare dinner for the first contingent of General Hospital No. 32, sponsored by Indiana University, and was repeated upon request at the meeting of the Indianapolis Medical Society on January twelfth. During World War I Doctor McCulloch served overseas for eighteen months with Base Hospital No. 32.

MANUAL OF CONDUCT

All you gallant doctors will soon achieve renown—
Perhaps you'll freeze in Iceland, or the Tropics tan you brown.
Your uniforms are snappy, but the sand may grind them down.
I don't know where you're going. The World is wide and round.

Perhaps you'll be inspectors, and work around latrines,
Or in the commissary, a-sampling pork and beans—
Be sure and keep tobacco in the pocket of your jeans,
You'll find it comes in handy when you visit foreign scenes.

Forget about your practice in the good old Hoosier state.
The chronics will stay faithful; emergencies can't wait.
They'll postpone all confinements until a later date,
And if you come home busted, we'll gladly pass the plate.

Promotion may come slowly, promotion may come fast—
Regardless of the outcome, you'll hang on till the last—
And if you should be wounded, or if you should be gassed,
The Hoosier Book of Merit will rate you "super-classed."

And as the Generals stand around, your conduct to observe,
Perhaps they'll make you Colonels, an honor you'll deserve
For high-falutin' courage and steadiness and nerve
As buster bombs come falling in ever closer curve.

When things are kind o' quiet, amid the dust and grime,
Just sharpen up your instruments and have yourself a time
On hernias and tonsils—the practice sure is prime
And easier than loafing or trying to write a rhyme.

But when the battle thickens and wounded come galore,
Wherever you are working, on sea, on hill, on shore,
Pull up your belt a notch or two, and wipe away the gore,
The fight won't last forever—it never has before.

Beware of all courts-martial—the Army is hard-boiled
O'er any dereliction by which their honor's soiled.
It wouldn't be so pleasant, however hard you'd toiled
If through some plain damn-foolishness your record should be spoiled.

Beware of all infections, for fleas inhabit mice,
And watch the seams and crannies of your underwear for lice.
Beware of beriberi from eating polished rice—
They're sources of diseases which can kill you in a trice.

Beware of that triumvirate, of Women, Wine and Song,
Abjuring all temptations of liquor or sarong.
For Love is evanescent, and Penitence is long—
Your families, then, can proudly boast, "He never done no wrong."

A dozen pages more there are of Triple-A advice,
And strongly am I tempted to cut you off a slice.
I know you've got to listen; it's really worth the price,
But at a "farewell party" it wouldn't just be nice.

Alas, my ink is running out, my pencil's but a stub.
You sure would be impatient if you hadn't had your grub.
So, ending up my discourse, this final word's the nub—
When you return we'll all be here, a-waiting at the Club!

Carleton B. McCulloch, M.D.

The following excerpts are reprinted from *The Service Bulletin* for November, 1942, published by the Saint Joseph County Medical Society:

"Capt. Marion Hillman was sure a good soldier when he spent his first week—just a bandagin'. It would have been so much easier to 'waac' it off."

"Dr. Harry Sandoz started out to do skin work in San Antonio until the Army realized its mistake in identity. Then they transferred him to Camp Bowie, Texas, and he is now in charge of a Ward."

"Many of you know that Major Pyle reported at the Stevens Hotel. He was asked his specialty, and he promptly replied that he was a pediatrician. His superior said, 'Good, we'll probably have a lot of foot trouble here."

"Saw a letter from Capt. Stiver which he wrote while stationed at Camp Bowie, Texas, telling of his fine mobile hospital unit. He has found time to study for and take his American Board of Surgery examination. We sincerely hope his acceptance and promotion comes through before he sails. Wouldn't you just like to watch him tell a few more good stories, tho'?"

"Lt. (s. g.) Arisman was transferred to Opa Locka, Fla., the "Country Club" of the Navy. He was sent there to teach anesthesia and do surgery. He says the southerners already know how to play poker. Since the weather is not so hot, he is enjoying Florida more, and hopes that if any of the fellows get down that way they will drop in and say 'Hello.' Best of luck, Pappy."

"A letter from Lt. Com. Slominski, who is on one of our crack air-craft carriers, relates that he has traveled thousands of miles over the Pacific without a dull moment. He says that it reminds him of duck shooting, except that the guns are larger and shoot faster, and at other times they are the ducks. He says the Japs are plenty tough, and he should really know. He adds that he has seen a lot of tropical diseases and natives with 'G-strings.' All in all, we would say that he has had a World of Experience. Lots of Luck, Commander!"

"A recent letter from Major Whitlock, who is still 'waddling' in the Fort Benjamin Harrison pool, is getting quite restless and is calling for the towel. Major Whitlock has received the preliminary indoctrination training and is now rarin' to go. He hopes that he soon may receive an assignment. Major Whitlock states that he has done few majors at Fort Harrison, but thinks the training in Army Administration received at Billings was quite valuable. He has equipped himself with a nice chair-model radio, determined that he is to have music wherever he goes. If any of you are near and would like to enjoy some good classical music, be sure to call up the Major."

"Lt. Com. Terry is in his second heaven in direction of the surgical division of the Norfolk Air Base Hospital. There's one thing he doesn't like about Norfolk; they can't get their shirts laundered."

"A telegram was just received from Lt. Commander Miller that he arrived safely in the South Pacific. You know Bill was in the Navy less than a month when his name was pulled out of a hat to volunteer for this trip. He has all the luck, and we hope it stays with him."

"Major Rudolph has long been noted for his hospitality, but someone suggested that he was carrying things too far when he bought a house every time he was transferred. Wouldn't it be swell if we could all drop in and have a housewarming with him? Those were the days!"

"Major H. Dale Pyle is a weekly South Bend commuter since he is still located at the Army Aviation Technical School, Chicago, where he is officer in charge of the dispensary. His quarters are comfortable to say the least, and Dale frankly likes Army life."

"Dr. George Green told Dr. Dave Bickel that he was reporting to Miami, Florida, on November 28th, and Dave said 'You don't suppose you'll be attached to paratroops, do you? You're too old to run fast enough when you land! And George says, 'The H——l I am!' Well, anyway, it's congratulations, Major, and good luck. We are going to miss you."

"A couple of weeks ago, Lt. Richard Holdeman dropped in fresh from indoctrination training in Pennsylvania, and on his way to Arkansas where he is assigned to a tank unit. Dick has had opportunity to reduce a considerable amount of weight and is ready to play fullback. So far, he has been kept busy while serving in desert maneuvers. On the whole, he is quite happy and satisfied with his outfit. He hopes the rest of the boys are feeling as well as he is."

"NEWS LETTER: It is of interest to learn that Carl Culbertson became quite disgusted with the lassitude of his Indianapolis Base Unit and he could no longer bear walking down the street so that people saw him in civilian clothes. He applied to the Surgeon General for active service. Accordingly he is now stationed at the Army Medical Center in Washington, D. C., receiving Army indoctrination training at the center. This has made Carl quite happy, and he is going about as usual now, enjoying hard work and in search for more knowledge, especially in the field of 'tropical parasites.' "

News Notes

Dr. N. A. Kremer, of Madison, has been named Jefferson County physician.

Dr. Paul W. Ferry, of Kokomo, has been elected president of the Kokomo Board of Health.

Dr. G. B. Metcalf, of Anderson, has been appointed health officer for Madison County.

Dr. William G. French, of Evansville, has enlisted in the Medical Division of the State Guard.

Dr. E. L. Fosbrink, formerly of Minnesota, is now associated with Dr. L. A. Elliott, of Elkhart.

Dr. Robert Scott, of Charlottesville, has been named coroner for Hancock County.

Dr. James Y. Welborn, of Evansville, was named to the Boehne Hospital Board of Managers.

Dr. Edward F. W. Crawford, of LaPorte, and Miss Clara Reeves, of LaPorte, were married in Laporte on November seventh.

Dr. Thomas C. Hall, of Medaryville, and Miss Martha Abramite, of Medaryville, were married at San Pierre on December sixth.

Dr. James Burk, of Decatur, was reappointed Adams County physician by the Board of County Commissioners.

Dr. Ralph Arnold, of Greenfield, was appointed physician for the Hancock County Jail and the Hancock County Farm.

Dr. Glenn Conway, of Indianapolis, and Miss Velma Schaaf, of Dale, were married in Dale on December twenty-seventh.

Dr. H. H. Wheeler, of Indianapolis, the new commander of the Paul Coble Post, of the American Legion, entertained the post at the Columbia Club on January eighteenth. Other new officers of the post are: A. J. Micheli, M.D., adjutant; and Dr. H. S. Kinney, D.D.S., finance officer.

Dr. John Green, of North Vernon, has been appointed secretary of the North Vernon Board of Health.

Information has reached us to the effect that Dr. Helen B. Rogers, formerly of Richmond, has been appointed a member of the Logansport State Hospital medical staff.

Dr. Howard Byrn, of Ellettsville, has been appointed acting local surgeon for the Monon Railroad. He succeeds Dr. Philip T. Holland, of Bloomington, who is now serving in the Medical Corps of the United States Army.

THE FOUNDATION PRIZE

The rules governing the award of "The Foundation Prize" of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons are as follows:

(1) "The award which shall be known as 'The Foundation Prize' shall consist of $150.00."

(2) "Eligible contestants shall include only (a) interns, residents, or graduate students in Obstetrics, Gynecology or Abdominal Surgery, and (b) physicians (with an M. D. degree) who are actively practicing or teaching Obstetrics, Gynecology or Abdominal surgery."

(3) "Manuscripts must be presented under a *nom de plume*, which shall in no way indicate the author's identity, to the Secretary of the Association together with a sealed envelope bearing the *nom de plume* and containing a card showing the name and address of the contestant."

(4) "Manuscripts must be limited to five thousand words, and must be typewritten in double-spacing on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are required for a clear exposition of the thesis."

(5) "The successful thesis shall become the property of the Association, but this provision shall in no way interfere with publication of the communication in the journal of the author's choice. Unsuccessful contributions will be returned promptly to their authors."

(6) "Three copies of all manuscripts and illustrations entered in a given year must be in the hands of the Secretary before June 1st."

(7) "The award will be made at the annual meeting of the Association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the Association. The successful contestant must meet all expenses incident to this presentation."

(8) "The President of the Association shall annually appoint a Committee on Award, which, under its own regulations shall determine the successful contestant and shall inform the Secretary of his name and address at least two weeks before the annual meeting."

For further information, write to James R. Bloss, M.D., Secretary, 418 Eleventh Street, Huntington, West Virginia.

PATHOLOGISTS CONFER

The Indiana Association of Pathologists met for their winter meeting at the Indiana University Medical Center on Saturday, January 9, with fourteen members and guests in attendance. After having lunch together, the various members of the group presented interesting and unusual cases and discussed problems of mutual interest. Probably no group of medical men in the state have the opportunity to see as many problem cases as the pathologists, and at these meetings all the members of the Association have the advantage of seeing the cases which their confreres have encountered during the previous months. As the cases are displayed there is free discussion of not only the cases in point, but incidental problems raised by the various aspects of the discussion. Several pathologic conditions of unusual interest and rarity were among those presented. Among these, probably the most unusual was one case of carcinoma of the umbilicus, of which only two cases appear in the Cumulative Index since 1928, and a case of ruptured peptic ulcer in a newborn infant, which appears to be unique in the medical literature. Other cases were Ewing's sarcoma of the lower end of the femur, multiple adenocarcinoma of the colon in an eighteen year old girl, Boeck's sarcoid with a classical microscopic picture in the skin lesions, chronic small intestinal obstruction with great dilatation of the proximal gut, with consequent pellagra and death after a number of years from mesenteric thrombosis. Another case was that of a chorionepithelioma of the uterus with widespread metastases. The importance of the Rh. factor and its part in the incidence of transfusion reactions and accidents of pregnancy was given general discussion by all members. It was pointed out that a modified method of cross matching blood before transfusions may be instrumental in preventing many of the more severe transfusion reactions.

In the evening the Association dined at the Marott Hotel, and the speaker of the evening, Doctor Thurman B. Rice, spoke on the National Program for the control of syphilis. He pointed out that the private laboratories of the state which are approved for the conduct of serologic tests have a great role to play in this campaign, and ways and means were discussed by which the facilities and scope of activity of these laboratories could be extended. He pointed out that the war had placed an unprecedented burden on the Indiana State Board of Health, particularly on the serology department, with as many as four thousand tests conducted during some days. He stressed the desirability of urging that only strictly indigent cases should be sent to the State Board of Health Laboratories.

Following the address by Doctor Rice, the annual business meeting was held and officers for the year were elected as follows: President, Wemple Dodds, M.D., of Crawfordsville; Secretary-treasurer, Harold C. Thornton, M.D., of Indianapolis, and Councilor, Lall G. Montgomery, M.D., of Muncie.

EXAMINATIONS
AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Saturday, February 13, 1943, at 2:00 P. M.

The Office of the Surgeon-General (U. S. Army) has issued instructions that men in Service, eligible for Board examinations, be encouraged to apply and that they may request orders to Detached Duty for the purpose of taking these examinations whenever possible.

All candidates will be required to take both the Part I examination, and the Part II examination (oral clinical and pathology examination). Candidates who successfully complete the Part I examination proceed automatically to the Part II examination to be held at Pittsburgh, Pennsylvania, from May 19-25, 1943. Notice of the exact time and place of the examinations will be sent all candidates well in advance of the examination date. Candidates in Military or Naval Service are requested to keep the Secretary's Office informed of any change in address.

If a candidate in service finds it impossible to proceed with the examinations of the board, deferment without time penalty will be granted under a waiver of our published regulations applying to civilian candidates.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

Defend
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INDIANA UNIVERSITY NEWS NOTES

All members of the December graduating class of the Indiana University School of Medicine have received assignments as interns, Dean W. D. Gatch has announced. Twenty-two of the class, which totaled 103, entered service in the Indiana University hospitals in Indianapolis this week. Sixteen started service in the Indianapolis City Hospital, nine in the Methodist Hospital and eight in St. Vincent's Hospital, both of Indianapolis. Six will serve with the United States Public Health Service, six with the Navy, and one with the Marines.

The list of assignments is as follows:

Indiana University Hospitals—Nevin E. Aiken, Fort Wayne; Evart M. Beck, Anderson; Carlos Brewer, Indianapolis; Kathryn E. Campbell, Boonville; Harry F. Carpentier, Indianapolis; John E. Caton, Terre Haute; Robert A. Cornell, Crawfordsville; Everett Gaunt, Anderson; Joseph Goldman, Indianapolis; Donald Hampshire, Indianapolis; Byron Harrison, Chandler; Charles Kime, Indianapolis; Ward Laramore, Knox; Robert Maurer, Brazil; Harold Rendel, Mexico; Alton Ridgway, Pennville; Robert Rouen, Goshen; Hiram Sexson, Indianapolis; Jean T. Stoops, Wabash; James W. Young, Indianapolis; and Gail Eldridge, Indianapolis.

Indianapolis City Hospital—Charles T. Botkin, Muncie; Norman R. Cook, Indianapolis; Alexander F. Craig, Gary; Bernard Dannacher, Wabash; Harley Hiestand, Pennville; Gilbert Himebaugh, Speed; James Himebaugh, Greenwood; Jerome Holman, Indianapolis; Edward C. Kattany, Indianapolis; William Kelly, Goshen; Jack Lockhart, Indianapolis; Jack Patterson, Peru; Robert Salb, Jasper; Gloster Smith, Kokomo; Fae Spurlock, Greencastle; and Cyril Van Meter, Indianapolis.

Indianapolis Methodist Hospital—James E. Asher, New Augusta; Robert J. Ballard, Lebanon; William L. Donham, Bicknell; Oscar Fodor, South Bend; Herschel Kopp, Indianapolis; William J. Millikan, Indianapolis; Cleon Schauwecker, Clay City; George Stauffer, Elkhart; and Lawrence Vogel, Lamar.

St. Vincent's Hospital, Indianapolis—John Crawford, Indianapolis; James Farr, Paragon; William Ferguson, Indianapolis; William Patterson, Indianapolis; James O. Price, Indianapolis; Wendell Prough, Bluffton; Allen Twyman, East Chicago; Robert Horton, Huntington.

United States Public Health—William A. Clunie, Corydon; Melvin H. Denny, Madison; Carl Freed, Attica; Ernest Iaconetti, South Bend; Thomas James, Vincennes; and Ralph Kinzie, North Manchester.

United States Navy—Ralph Faucett, Pershing; William Gerding, Fort Wayne; Albin Jankowitz, Gary; Sherman Minton, New Albany; Stuart Rose, Muncie; and Robert Switzer, Cromwell.

Other assignments are as follows: Warren Ball, Muncie, Clark County General Hospital of Chicago; Robert Barton, Ligonier, West Suburban, Oak Park, Illinois, Hospital; Jack Blackstone, Indianapolis, Nashville, Tennessee, General Hospital; Irwin Bleiweiss, New York City, Queens General Hospital, Jamaica, L. I.; Daniel Bright, Clinton, and Thomas M. Brown, Muncie, William J. Seymour Hospital, Eloise, Michigan; Joseph H. Clark, Rossville, and James H. Crawford, Evansville, Saint Joseph Hospital, Fort Wayne; Herbert L. Cormican, Elkhart, Epworth Hospital, South Bend; Bernard Davidson, Elkhart, Cook County General Hospital, Chicago; Richard Dunham, Worthington, Jefferson Davis Hospital, Houston, Texas; Max Earl, Muncie, Bell Memorial Hospital, Muncie; Robert Emmons, Lapaz, Minnesota General Hospital, Minneapolis; Henry Feffer, New York City Hospital, King County Hospital, New York City; Wayne Grodrian, Fort Wayne, Pierce County Hospital, Tacoma, Washington; Robert Hayes, Indianapolis, State of Wisconsin General Hospital, Madison, Wisconsin; Guy Hoover, Boonville, Denver General Hospital, Denver, Colorado; William Horst, Crown Point, Cook County Hospital, Chicago; Roger Isenhour, Indianapolis, Cook County Hospital, Chicago; Jim S. Jewett, Carmel, Jackson Memorial Hospital, Miami, Florida; James Logan, Indianapolis, Augustana Hospital, Chicago; John Marlowe, East Chicago, Saint Margaret's Hospital, Hammond; Richard McDonald, Muncie, Gorgas Hospital, Panama Canal Zone, Fletcher McDowell, Muncie, Baltimore (Maryland) City Hospital; H. Paul Miller, Fort Wayne, Lutheran Hospital, Fort Wayne; Tony C. Nolke, Mishawaka, Bellevue Hospital, New York City; Robert Schumaker, Terre Haute, St. Margaret's Hospital, Hammond; Tom Sheller, Bremen, St. Margaret's Hospital, Hammond; George Smith, Dunkirk, Gorgas Hospital, Panama Canal Zone; Joseph Szokolai, South Bend, Henry Ford Hospital, Detroit, Michigan; David L. Tennant, Larwill, Lutheran Hospital, Fort Wayne; Edgar Thompson, Clark's Hill, Pasadena (California) General Hospital; Robert Vermilya, Brownstown, St. Joseph Hospital, Fort Wayne; Robert Weber, Muncie, Cleveland City Hospital; and Rex Whiteman, Logansport, Akron City Hospital, Akron, Ohio.

* * *

Due to the wartime need for dentists, the personnel of the class chosen for admission to the Indiana University School of Dentistry this semester is 14 per cent larger than normal classes of the dental school. The class, numbering 57, will finish their dental work in September, 1945, over a year ahead of schedule, which is in accordance with the University's accelerated war program. Scholastic

attainments, character, aptitude for the study of dentistry and personality were considered in selecting the students for admission. They must have completed at least two years of pre-dental work at a recognized institution of higher learning. The first two semesters of the professional dental work will be done on the campus at Bloomington and the remainder at the University's School of Dentistry in Indianapolis.

Thirty-four of those chosen took their pre-dental work at Indiana University, and are as follows:

Nathan F. Adelman, Malden, Massachusetts; Robert L. Anderson, Seymour; Ted B. Godupski, East Chicago; John W. Hohe, Huntington; John C. Hoover, Youngstown, Ohio; Robert E. Kemp, Winslow; Maurice C. Kivett, Greencastle; Sam R. Laudeman, Elwood; Samuel J. McDowell, Vincennes; Weir Mitchell, Indianapolis; Arthur J. Mullin, Indianapolis; Harry L. Murphy, Franklin; Irving S. Newmark, Bronx, New York; Antonio Orpi, Lebanon; and John Richards, Bedford. James A. Ricketts, Kokomo; Robert M. Ricketts, Kokomo; Arnold M. Russo, Indianapolis; Stanley Schwartz, Bronx, New York; Hubert A. Seller, Greencastle; Henry J. Sponder, Gary; Samuel M. Standish, Campbellsburg; Daniel Strapon, East Chicago; Victor P. Surico, Brooklyn, New York; Charles J. Vincent, Michigan City; Herbert F. Waldhier, Troy; Ross W. Warren, Marshall; Paul B. Yingling, Kokomo; Robert D. Gannon, Middlebury; Ralph Shepherd, Whiting; Donald R. Evans, Bryan, Ohio; Joe P. Arvin, Indianapolis; Iriot Childress, Gary; and Kent C. Dawson, Elwood.

The twenty-three who did their pre-dental training elsewhere, and the schools they attended are as follows:

Gordon F. Abbott, Miami, Florida, University of Miami; Robert K. Allen, Hartford City, DePauw; Elwood W. Brickler, Newport, Kentucky, Morehead State Teachers College; John J. Calland, Indianapolis, Butler; Leon M. Cohn, Gary, Gary Junior College; Jilson P. Conley, Salyersville, Kentucky, University of Kentucky; Alex Getzoff, New London, Connecticut, Louisiana State University; William Glazer, South Norwalk, Kentucky, New York University; Milton Goodman, Detroit, Michigan, Wayne University; Charles R. Herrick, Hobart, Valparaiso University; Loren W. Jefferies, Cleveland, Ohio, Butler; Richard E. Jennings, Indianapolis, Butler; Frank R. Longcamp, Aurora, Cincinnati University; Charles H. Lowry, Bedford, DePauw; Jack H. Purcell, Evansville, Evansville College; Sidney E. Robertson, Indianapolis, Butler; Harold Rosenman, Brooklyn, New York, New York University; Glen L. Simms, Plano, Illinois, Oakland City College; John M. Stenger, Indianapolis, Butler; Arthur I. Stine, North Manchester, Purdue; Charles E. Watkins, MacBeth, West Virginia, Marshall College; William W. Witt, Indianapolis, Butler; Joe G. White, Indianapolis, Butler.

ABSTRACTS

BERIBERI HEART IN FOUR-MONTH OLD INFANT

The daily diet of the average young infant is deficient in thiamine hydrochloride or vitamin B_1 and should be supplemented with that vitamin, Henry Rascoff, M.D., Brooklyn, advises in *The Journal of the American Medical Association* for December 19 in a report of a four month old infant who was on a limited diet of boiled human milk for two months and subsequently developed a beriberi heart which diminished in size with thiamine hydrochloride treatment.

PRESENTS SEVEN DIETARY SUGGESTIONS FOR THE AGED

Seven dietary suggestions for the aged are presented in *The Journal of the American Medical Association* for January 2 by Edward L. Tuohy, M.D., Duluth, Minn., in summarization of a special article on the subject, prepared under the auspices of the Association's Council on Foods and Nutrition. Dr. Tuohy says:

"1. Elderly people should start the day with a good breakfast. It should include some substantial protein, and whatever else depends on body weight and activity. Protein adequacy must be maintained at all ages.

"2. As effort lessens and sedentary life supervenes, weight rise or fall should dictate the proportion of carbohydrate taken, and as much of this as possible should be from whole grain. While bran is objectionable cracked wheat products are not. Enriching flour may be a good expedient but the objection to dark breads should be lived down. Potato is the next best starch.

"3. For the obese, vegetables and fruits should act as the 'fillers' and provide appetite and zest for eating by meticulous preparation and serving.

"4. The elderly should eat fat sparingly, even as the middle aged should use it cautiously. The high cholesterol sources (egg yolk, cream and animal fats) should probably be curtailed wherever body build, family history and other indications portend atherosclerosis. It is the one decisive indication for dietary restriction after full stature has been attained. The danger of high blood cholesterol is not universal.

"5. Tea, coffee and alcohol are useful stimulants. The abuse of alcohol places it for some people in the category of both refined carbohydrate and animal source fat. As a vasodilator it inspires as well as flushes the aged. One cannot say as much for tobacco. It soothes and cuts off circulation. The quiet postprandial puff is rapidly becoming a continuous process. Tobacco is safer after 60 than before, because age has by that time made the blood vessels less elastic and labile.

"6. Food and water (hot drink) taken at regular intervals revive the old. Food becomes the best sleep producer even though early wakefulness follows. Fruit juices add the needed vitamin content.

"7. Hunger lessens as age advances. Foods useless calorically (condiments, broths, relishes) have a place. The teeth, gastric acidity, probable absorptive powers, vitamin storage—all begin to fail with age. We are able to compensate for these loses with vitamins, iron, calcium, hydrochloric acid and a balanced diet. The mouth becomes the nutritional barometer of health."

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

THE COUNCIL

The Council of the Indiana State Medical Association convened for its midwinter meeting at 10:15 A. M., Sunday, January 10, 1943, in the Harrison Room of the Columbia Club, Indianapolis, with Dr. Floyd T. Romberger, of Lafayette, chairman, presiding. Roll call showed the following present:

Members of the Council:

First District—I. C. Barclay, Evansville
Second District—H. C. Wadsworth, Washington
Third District—Not represented
Fourth District—Not represented
Fifth District—A. M. Mitchell, Terre Haute
Sixth District—Samuel Kennedy, Shelbyville
Seventh District—C. J. Clark, Indianapolis
Eighth District—E. H. Clauser, Muncie
Ninth District—F. T. Romberger, Lafayette
Tenth District—N. K. Forster, Hammond
Eleventh District—Ira Perry, North Manchester
Twelfth District—H. L. Murdock, Fort Wayne
Thirteenth District—Not represented

Officers:

M. A. Austin, Anderson, president 1942
C. H. McCaskey, Indianapolis, president 1943
J. T. Oliphant, Farmersburg, president-elect
A. F. Weyerbacher, Indianapolis, treasurer
T. A. Hendricks, executive secretary

On the motion of Dr. Forster, seconded by Dr. Wadsworth, the reading of the minutes of the September 29 and October 1, 1942, meetings of the Council, held at French Lick, was dispensed with, as these minutes were approved as printed in the November issue of THE JOURNAL.

REPORTS OF COUNCILORS BY DISTRICTS

A brief, informal report was made by each councilor, indicating that all of the districts are functioning and in good condition. In addition, the following remarks were made:

Dr. F. T. Romberger, 9th District—"We have held our meetings and have been surprised at the attendance. The medical situation there, as far as the men in the service is concerned, has been acute because half of our active practising physicians are in the service. However, by cutting the corners and giving a less *de luxe* type of service, the doctors who still remain have given very good service."

Dr. N. K. Forster, 10th District—"I have no special report except that I would like to subscribe to the same sentiments as expressed by Dr. Romberger as far as the Tenth District is concerned."

District meetings were reported scheduled as follows for 1943:

First District	Not set
Second District	Not set
Third District	Not set
Fourth District	Greensburg, May 19, 1943
Fifth District	Not set
Sixth District	Shelbyville, May 20, 1943
Seventh District	Martinsville, _____, 1943
Eighth District	Muncie, _____, 1943
Ninth District	Lafayette, May 20, 1943
Tenth District	Hammond, April, 1943
Eleventh District	Not set
Twelfth District	Not set
Thirteenth District	Not set

The chairman called attention to the dates set for the annual session of the American Medical Association to be held at Chicago, June 7 to 11, 1943, and to the fact that district meetings should not conflict with each other or with the A.M.A. meeting. He asked that each councilor inform THE JOURNAL and the headquarters office as soon as possible of the date set for his district meeting.

Dr. Clark announced that no postgraduate course will be held at the University this year because of the trimester arrangement which leaves no vacant period when the facilities of the medical school would be available for such a course.

T. A. Hendricks, executive secretary—"You may all be familiar with the remarks made by Dr. Rankin, president of the A.M.A., at the secretaries' conference at Chicago, where he stressed the desirability of keeping up your state organization and, if necessary, have joint meetings with other state societies. In lieu of the curtailment of many activities of our county medical societies, it might be well to have multiple county meetings. If you councilors this year will stress your district meetings, perhaps they will fill up a gap that would otherwise exist because of the lack of the usual county society meetings in many localities."

In answer to a question, the secretary said there is no objection to two county societies which happen to be in different districts having joint meetings.

REPORTS OF OFFICERS

Short reports were made by Dr. M. A. Austin, president 1942, Dr. C. H. McCaskey, president 1943, and Dr. J. T. Oliphant, president-elect.

Dr. A. F. Weyerbacher, treasurer, presented the following report which was compiled by George S. Olive and Company, certified public accountants:

TREASURER'S REPORT

January 7, 1943.

The Council,
Indiana State Medical Association,
Indianapolis, Indiana.
Gentlemen:

We have examined the cash records of your Association for the year ended December 31, 1942. This examination was undertaken for the purpose of determining and verifying the cash transactions for the year, and of verifying the assets at the close of the year, as recorded on the records.

The results of our examination are presented in this report, which includes: (1) text of comments; (2) statement of assets of all funds at December 31, 1942; (3) statements of receipts and disbursements of all funds, year ended December 31, 1942. A list of the statements is presented on the first page following this text.

General Comments

In Exhibit A is presented an analysis of the decrease in assets of the Association for the year ended December 31, 1942, showing in summary form the sources from which this decrease was derived.

It should be noted that the net decrease in total assets of $171.29 is the result after considering the charge-off of the remaining book value of the Beachton Court Apartment bonds, and the Rokeby Apartment Hotel bonds, which amounted to $2,402.20. To illustrate the results of the past year's operations both before and after considering this charge-off, we present the following schedule:

Total assets, December 31, 1942, before charge-off	$62,294.90
Total assets, December 31, 1941	60,063.99
Net increase, before charge-off	$ 2,230.91
Charge-off of no value bonds	2,402.20
Net decrease, after charge-off—Exhibit A	171.29

The net increase, before charge-off, for the year ended December 31, 1942, shows a gain over the net increase for the year ended December 31, 1941, in the amount of $50.13, as follows:

Net increase, before charge-off, year ended December 31, 1942	$ 2,230.91
Net increase, year ended December 31, 1941	2,180.78
Excess of increase of year 1942 over year 1941	$ 50.13

The remaining book value of the Beachton Court Apartment bonds, and the Rokeby Apartment Hotel bonds has been charged off at the end of the year under review, since the Association has received the final liquidation distribution of the bonds during the year 1942.

Details of the assets of all funds are presented in Exhibit B. Since there were no recorded liabilities at December 31, 1942, the assets as shown represent the surplus of each fund at that date.

We have examined the securities of the Association, and confirmed bank balances by direct correspondence with the depositories.

Details of the cash receipts and disbursements of the general fund, of THE JOURNAL of the Indiana State Medical Association, and of the Medical Defense fund are presented in exhibits designated C, D, and E.

Yours very truly,
GEO. S. OLIVE & COMPANY,
Certified Public Accountants.

Indiana State Medical Association

LIST OF STATEMENTS CONTAINED IN REPORT
ON EXAMINATION OF CASH RECORDS
YEAR ENDED DECEMBER 31, 1942

Exhibit A—Analysis of decrease in assets, all funds, year ended December 31, 1942.

Exhibit B—Statement of assets, all funds, at December 31, 1942.

Exhibit C—Comparative statement of cash receipts and disbursements, years ended December 31, 1942, and December 31, 1941.

Exhibit D—Statement of cash receipts and disbursements of THE JOURNAL of The Indiana State Medical Association, year ended December 31, 1942.

Exhibit E—Statement of cash receipts and disbursements of the Medical Defense fund, year ended December 31, 1942.

EXHIBIT A

INDIANA STATE MEDICAL ASSOCIATION

ANALYSIS OF DECREASE IN ASSETS, ALL FUNDS,
YEAR ENDED DECEMBER 31, 1942

Total Assets, December 31, 1942—Exhibit B			$59,892.70
Total Assets, December 31, 1941			60,063.99
Net Decrease			**$ 171.29**
Arising from the following sources:			
Excess of operating cash disbursements over operating cash receipts, general fund, year ended December 31, 1942:			
Receipts—Exhibit C	$35,718.10		
Disbursements—Exhibit C	37,380.02		
Excess of operating disbursements		**$ 1,661.92**	
Excess of operating receipts over operating disbursements, medical defense fund, year ended December 31, 1942:			
Receipts—Exhibit E	2,687.25		
Disbursements—Exhibit E	2,685.70		
Excess of operating receipts		1.55	

Excess of operating disbursements over operating receipts, THE JOURNAL of The Indiana State Medical Association, year ended December 31, 1942:			
Receipts—Exhibit D	17,922.81		
Disbursements—Exhibit D	18,908.73		
Excess of operating disbursements		**985.92**	
Add:			
Increase in investments:			
U. S. Savings bonds		7,000.00	
Less:			
Reduction in investments:			
Beachton Court Apartments bonds, final liquidation	**1,815.60**		
Rokeby Apartment Hotel bonds, final liquidation	**307.20**		
Balance of book value, after final liquidation, for Beachton and Rokeby bonds, charged off	**2,402.20**		
		4,525.00	
Total Net Decrease			**$ 171.29**

EXHIBIT B

STATEMENT OF ASSETS, ALL FUNDS, AT DECEMBER 31, 1942

General Fund

Cash on deposit—Exhibit C		$10,975.14	
Petty cash fund		200.00	
Investments:			
Marion County Flood Prevention bonds	$ 3,000.00		
Indianapolis City Hospital bonds	5,000.00		
U. S. Treasury bonds	13,000.00		
U. S. Savings bonds	5,000.00		
		26,000.00	
Total general fund assets			$37,175.14

The Journal of The Indiana State Medical Association

Cash on deposit—Exhibit D			2,705.34

Medical Defense Fund

Cash on deposit—Exhibit E		5,012.22	
Investments:			
Marion County Flood Prevention bonds	2,000.00		
U. S. Treasury bonds	8,000.00		
U. S. Savings bonds	2,000.00		
U. S. Baby bonds	3,000.00		
		15,000.00	
Total medical defense fund assets			20,012.22
Total Assets, All Funds—Exhibit A			$59,892.70

EXHIBIT C

COMPARATIVE STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEARS ENDED DECEMBER 31, 1942, AND DECEMBER 31, 1941

	Year Ended		
	Dec. 31, 1942	Dec. 31, 1941	Increase **Decrease**
Cash Balance at Beginning of Year	$12,637.06	$14,161.43	**$1,524.37**
Receipts			
Membership dues	29,621.83	30,224.00	**602.17**
Income from exhibits	3,027.50	5,390.00	**2,362.50**
Petty cash refund contra	.....	300.00	**300.00**
Orange County Medical Society on 1940 convention	.....	233.70	**233.70**
Indianapolis Society refund of convention expense	.....	136.54	**136.54**
Miscellaneous refunds	1.88	20.04	**18.16**
Beachton Court Liquidation Trust distribution	1,815.60	40.00	1,775.60
Rokeby Liquidation Trust distribution	307.20	.....	307.20
Refunds of traveling expense	222.84	.....	222.84
Interest income:			
U. S. Treasury bonds	368.75	368.75	.....
U. S. Savings bonds	25.00	.....	25.00
Indianapolis, Indiana, City Hospital bonds	200.00	200.00	.....
Marion County, Indiana, Flood Prevention bonds	127.50	127.50	.....
Total receipts	$35,718.10	$37,040.53	**$1,322.43**
BEGINNING BALANCE PLUS CASH RECEIPTS	$48,355.16	$51,201.96	**$2,846.80**
Disbursements			
Transfer of applicable portion of dues to THE JOURNAL of The Indiana Medical Association—Exhibit D	$ 6,494.50	$ 6,428.00	$ 66.50
Medical defense fund—Exhibit E	2,364.75	2,337.75	27.00
Headquarters' office expense	10,680.74	10,259.73	421.01
Publicity committee	250.81	239.48	11.33
Public policy	220.71	1,554.30	**1,333.59**
Council	6,265.60	6,140.66	124.94
Officers	439.35	642.79	**203.44**
Rent	500.00	500.00	.....
Annual session	1,995.22	4,945.26	**2,950.04**
Miscellaneous committees	1,404.67	1,383.49	21.18
Postgraduate study	15.50	50.82	**35.32**
Federal O.A.B. tax	60.67	57.92	2.75
Military dues refunds	1,590.00	372.50	1,217.50
Petty cash refund contra	.....	300.00	**300.00**
Other refunds	25.00	20.00	5.00
Securities purchased	5,000.00	3,332.20	1,667.80
Sundry	72.50	.....	72.50
Total disbursements	$37,380.02	$38,564.90	**$1,184.88**
Cash Balance at End of Year	$10,975.14	$12,637.06	**$1,661.92**

(Exhibit B)

EXHIBIT D

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEAR ENDED DECEMBER 31, 1942

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

BALANCE, JANUARY 1, 1942	$ 3,691.26

Receipts

Subscriptions—members—Exhibit C	$ 6,494.50	
Subscriptions—non-members	131.00	
Advertising	10,984.14	
Collections on accounts receivable	190.00	
Single copy sales	34.75	
Electrotypes	88.42	
Total Receipts—Exhibit A		17,922.81
		21,614.07

Disbursements

Editorial and management salaries	$ 7,838.15	
Printing	8,410.89	
Office postage	215.00	
Journal postage	531.33	
Press clippings	106.66	
Electrotypes	446.94	
Office rent and light	244.43	
Office supplies	450.16	
Advertising commissions	85.50	
Extra help—reporting	390.17	
Federal O.A.B. tax	51.82	
Expenses—editor and editorial board	90.18	
Copyright fee	24.00	
Surety bond	20.00	
Sundry	3.50	
Total disbursements—Exhibit A		18,908.73
Balance, December 31, 1942—Exhibit B		$ 2,705.34

EXHIBIT E

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS,
YEAR ENDED DECEMBER 31, 1942
MEDICAL DEFENSE FUND

BALANCE, JANUARY 1, 1942			$5,010.67
Receipts:			
Transfer of applicable portion of dues from the general fund—Exhibit C		$2,364.75	
Interest income:			
U. S. Treasury bonds	$237.50		
Marion County, Indiana, Flood Prevention bonds	85.00		
		322.50	
Total receipts—Exhibit A			2,687.25
			7,697.92
Disbursements:			
Attorney's retainer fee		$600.00	
Treasurer's bond		15.00	
Attorney's expenses and single day fee to attend Federation of State Medical Board		70.70	
U. S. Savings bonds		2,000.00	
Total disbursements—Exhibit A			2,685.70
Balance, December 31, 1942—Exhibit B			**$5,012.22**

The secretary read the following report from E. M. Shanklin, M.D., editor of THE JOURNAL, who was unable to be present:

"I regret being unable to make a personal report of the doings of your magazine during the past year, but a recent encounter with Old Man Flu precludes such a plan. I believe this is the first meeting of the Council I have missed in something like thirty years, or whatever the life of that body may be.

"THE JOURNAL has done well this past year; I say this not only because I believe it has given a good accounting of itself, but from the fact that as in former years we continue to receive letters from within and without the state to that effect.

"A year ago I pledged that THE JOURNAL for 1942 would be all-out for the duration, and it is my belief that this pledge has been kept. We have met every request from official Washington, even holding up publication on several numbers until said official Washington could get to us certain material they wished published. We also have cooperated to the fullest extent with all officials and committees of the Indiana State Medical Association in matters pertaining to the war effort.

"I regret that no meeting of the Editorial Board was held during the year. A meeting was called for a session during the French Lick convention, but for one reason or another none of the board members were present. One or two had other appointments for that hour, and one or two members did not attend the convention. No effort was made to hold a special meeting at Indianapolis last year. For one or two years after the present regime took over, this plan was followed, resulting in some criticism of the expense since board members were asked to submit expense accounts. I believe that at least two meetings should be held and that the actual traveling expenses of board members should be paid from JOURNAL funds. All other committees seem to have this privilege.

"I am just advised that the annual audit of the books show that all accounts of THE JOURNAL are found to be in good order. The financial report, of course, will be incorporated in the annual report of Treasurer Weyerbacher.

"We are no little disturbed over two or three vitally important matters, chief of which is the income of THE JOURNAL. We are advised that we will lose some of our better-paying advertisers and that others will curtail the space they usually have bought. That, however, is not the concern of the editorial department, and probably will be presented to the Council by Mr. Hendricks.

"Due to the fact that almost one-third of our membership is now in Service, as well as to several other causes, THE JOURNAL finds itself sorely in need of scientific papers. We had less than the usual number from the annual convention, which adds to our difficulties very materially. As matters now stand, in our March number we will have used about all the material presently available.

"In times past, when material was running short, we used several means to supply the deficiency. First, we wrote personal letters to men about the state, men whom we knew had writing ability, asking them to help us out; they usually did. We wrote members of the Council, asking their assistance in locating material; this did not

work out so well. We also contacted men about the state who were known to be active in medical affairs; we wrote some of the secretaries of the larger county societies—all these plans working out to give us the required material. But 1943 will find the problem much tougher.

"For years we have had the rule that a member should not be permitted to have more than one paper printed in THE JOURNAL per year. I am recommending that this rule now be abrogated, at least for the duration. Such a plan will work out very much to our advantage. For example, we will soon publish an article on brucellosis, from a member who has been devoting a lot of time to that important subject. This article will deal with the "history" of the subject. Later on this same man will offer a paper on the management of forty-four cases of chronic brucellosis, together with his laboratory findings, *et cetera*. According to the present rule we would lose this valuable contribution.

"The same is true with some of the work being done in the Lilly Research Laboratories. I am confident that we can get several papers from this source if the rule is abrogated.

"It probably is true that we shall have to be more liberal in our use of "foreign" papers during 1943; by that I mean papers from men without the state. Often these men are guests of our local societies and every little while we receive a paper from a doctor in another state, requesting publication. In all, it is evident that our policy in this regard will have to be revamped. The matter will be presented to the Editorial Board at an early date, via letter, but we would like to have the reaction of the Council thereto. For, be it remembered, THE JOURNAL is the creature of the Council.

"I should also like some expression from the Council regarding the war policy of THE JOURNAL in 1943; shall we continue the all-out policy? We have had practically no criticism from the membership in this regard during the past year.

"If our income for 1943 is seriously disturbed, what shall we do about it? Shall we cut down on the number of pages? Our printing costs no doubt will be increased — Mr. Hendricks will tell you about that, since I am advised that he recently has had a conference with the printers.

"I again thank the members of the Council for your expression of confidence, in having renamed me as your editor for 1943. I have concluded ten years in this service and have thoroughly enjoyed it; in fact, THE JOURNAL has in recent years come to be a most important part of my life. I like the associations; I like the work and regard each new copy, from month to month, as a new addition to my personal family.

"I know this session of the Council will be a most interesting and most productive one. I long since have regarded the Council as the chief cog in our medical organization; it is the group that makes the wheels go 'round. I again wish to say that I am more than sorry not to be a part of the present meeting."

Dr. Forster moved that the report of the editor of THE JOURNAL be accepted and that the recommendations made therein be concurred in. This motion was seconded by Dr. Wadsworth, and carried.

The secretary discussed the business management of THE JOURNAL, saying that increased printing costs and decreased advertising income in 1943 will probably necessitate a ten per cent reduction in the number of pages printed. He also reported that the named general hospitals total forty-two and asked if the Council wished to send THE JOURNAL gratis to that many hospitals in accordance with the motion made at French Lick in October. Dr. Forster moved "that the action of the Council in ratifying the idea of sending THE JOURNAL to these named hospitals be reaffirmed." This motion was seconded by Dr. Austin, and carried.

Mr. Hendricks—"The high point of THE JOURNAL in 1942 was the Industrial Health Number. That issue received comment from all over the country. The *Medical Annals of the District of Columbia* said that it was the best individual medical publication of any issue in the country during the year. At the secretaries' and editors' conference at Chicago, the chairman, Dr. Weld, paid a high tribute to THE JOURNAL of the Indiana State Medical Association. I can say that because, of course, the credit goes to Dr. Shanklin and the Editorial Board."

UNFINISHED BUSINESS

1. *Romberger plan for Physicians' Universal Military Service.* It was moved by Dr. Forster that, in view of present conditions, this plan for the selection or election of physicians for military service be tabled at this time. Motion seconded by Dr. Mitchell, and carried.

SUGGESTIONS AND PROPOSALS FOR 1943 (94th) ANNUAL SESSION AT INDIANAPOLIS

1. *Dates set* by the Executive Committee, Tuesday, Wednesday and Thursday, September 28, 29 and 30, 1943, approved by the Council.

2. *Thursday morning scientific meetings.* Following discussion, Dr. Perry moved "that the meeting at Indianapolis this coming fall be held in accordance with the program here outlined, that is, that the House of Delegates and Council shall meet as heretofore on the dates here set out, but that the final scientific meeting on Thursday morning be omitted." Motion seconded by Dr. Wadsworth, and carried.

3. *Smoker and stag party.* Dr. Barclay moved that the stag party be held as heretofore. This motion was seconded by Dr. Forster, and carried.

4. *Golf tournament and trap shoot.* Dr. Perry moved that the golf tournament and trap shoot be eliminated in 1943. Motion seconded by Dr. Kennedy, and carried.

5. *Type of scientific meetings.* Dr. Forster moved that the Wednesday morning meeting be a general meeting and that sectional meetings be held Wednesday afternoon. Motion seconded by Dr. Wadsworth, and carried.

6. *Scientific exhibit.* Dr. Forster moved that the question of whether or not a scientific exhibit be held be left up to the discretion of the Executive Committee. Motion seconded by Dr. Wadsworth, and carried.

7. *Commercial exhibit.* Dr. Forster moved that a commercial exhibit be held. Motion seconded by Dr. Barclay, and carried.

8. *Preliminary program.* Embodying the foregoing suggestions and changes, the preliminary program for the 1943 annual session of the Indiana State Medical Association is as follows:

Monday, September 27, 1943

Meeting of health officers.

Tuesday, September 28, 1943

Morning	Registration
	Opening of commercial exhibits
Afternoon	Council meeting
	Meeting of House of Delegates
Evening	Smoker and stag party
	Dinner for women physicians

Wednesday, September 29, 1943

Morning	General scientific meeting
	Commercial exhibits
Noon	Class and fraternity get-togethers and luncheons
Afternoon	Section meetings
Evening	Annual banquet

Thursday, September 30, 1943

Morning	Final meeting of House of Delegates
	Final Council meeting
	Adjournment

The Claypool Hotel will be convention headquarters.

9. *Budget.* The estimated budget of $1,200.00 for the local committee's expenses, submitted by Dr. Gordon Batman, chairman of the Convention Arrangements Committee, was approved.

10. *Employment of professional medical stenographers* was approved upon the motion of Dr. Forster, seconded by Dr. Mitchell.

MEMBERSHIP REPORT

December 31, 1942

County Society	No. M.D.s in County*	Mems. Dec. 31, 1942	Mems. Dec. 31, 1941	Loss-Gain	Elig. Non-Members	New Members	Removed and Retired	Deceased	Ineligible	No. M.D.s in Service†
First District										
Posey	17	12	10	2	2	....	4	1	1	4
Vanderburgh	198	148	138	10	34	6	15	....	5	53
Warrick	19	12	12	....	2	....	5	....	....	5
Spencer	19	11	12	–1	6	1	1	1	1	5
*Perry	13	11	13	–2	....	....	2	....	1	.....
Gibson	31	29	28	1	1	....	2	2	....	8
Pike	12	10	8	2	2	....	....	....	....	3
Total	309	233	221	12	47	7	29	4	8	78
Second District										
Knox	55	42	39	3	8	2	5	1	2	7
*Daviess-Martin	37	26	26	....	10	1	1	1	....	13
Sullivan	26	22	21	1	1	....	6	1	....	1
Greene	27	20	22	–2	6	....	....	2	....	10
Owen	12	11	11	....	1	....	....	....	....	5
*Monroe	42	37	35	2	3	3	2	....	....	13
Total	199	158	154	4	29	6	14	5	2	49
Third District										
Lawrence	34	22	22	....	5	....	5	2	....	10
*Orange	15	15	14	1	....	....	2	1	....	3
Crawford	11	4	5	–1	6	1	....	1	....	2
Washington	14	11	9	2	1	3	2	....	1	3
Scott	10	4	5	–1	4	....	2	....	....	1
Clark	39	13	14	–1	22	....	2	1	1	11
*Floyd	46	39	37	2	4	3	1	....	2	14
Harrison	8	8	7	1	....	....	....	....	....	1
Dubois	25	20	21	–1	4	1	1	....	....	5
Total	202	136	134	2	46	8	15	5	4	50
Fourth District										
Brown	.....	.....	.....	....	....	....	....	....	....	.....
Bartholomew	41	26	28	–2	8	....	4	1	3	9
*Decatur	20	18	18	....	1	....	1	1	....	4
Jackson	27	19	19	....	6	....	1	2	....	7
*Jennings	13	12	12	....	....	....	2	....	....	3
Ripley	17	14	14	....	3	....	1	....	....	3
Jefferson	23	19	18	1	2	....	3	....	....	3
Switzerland	9	7	6	1	1	....	....	....	1	.....
*Dearborn-Ohio	28	20	20	....	3	1	2	1	3	10
Total	178	135	135	....	24	1	14	5	7	39
Fifth District										
Parke-Vermillion	41	23	20	3	11	2	3	4	1	6
Putnam	19	17	17	....	....	1	....	....	2	5
Vigo	138	107	111	–4	20	3	6	3	6	24
Clay	21	17	17	....	3	....	1	1	....	5
Total	219	164	165	–1	34	6	10	8	9	40
Sixth District										
Hancock	23	19	19	....	2	....	1	1	....	5
*Henry	44	39	38	1	1	1	2	1	2	16
Wayne-Union	82	61	59	2	11	1	5	1	5	22
Rush	21	15	15	....	3	1	3	4	1	3
Fayette-Franklin	24	20	19	1	....	....	2	1	2	3
Shelby	34	21	21	....	10	....	3	....	....	10
Total	228	175	171	4	27	3	16	8	10	59

County Society	No. M.D.s in County*	Mems. Dec. 31, 1942	Mems. Dec. 31, 1941	Loss-Gain	Elig. Non-Members	New Members	Removed and Retired	Deceased	Ineligible	No. M.D.s in Service†
Seventh District										
Hendricks	21	17	16	1	1	2	....	1	2	3
*Marion	976	646	646	....	275	....	40	17	21	261
Morgan	31	19	17	2	7	1	3	1	1	6
*Johnson	22	16	17	–1	6	....	1	....	....	5
Total	1050	698	696	2	289	3	44	19	24	275
Eighth District										
*Madison	103	83	80	3	16	4	6	1	2	26
*Delaware-Blackford	111	77	85	–8	28	1	5	1	3	30
Jay	27	17	18	–1	7	1	3	....	....	9
Randolph	29	24	24	....	4	....	3	....	....	7
Total	270	201	207	–6	55	6	17	2	5	72
Ninth District										
Benton	12	11	12	–1	....	....	....	....	1	1
*Fountain-Warren	27	22	23	–1	5	....	1	....	....	5
*Tippecanoe	101	91	86	5	8	6	2	2	1	30
*Montgomery	40	27	26	1	6	1	4	3	....	10
Clinton	30	25	24	1	3	....	2	3	....	9
Tipton	16	11	11	....	4	....	1	1	....	3
*Boone	27	21	20	1	4	....	1	1	1	7
*Hamilton	32	19	18	1	5	1	3	4	1	6
White	9	4	5	–1	5	....	....	....	....	4
Total	294	231	225	6	40	8	14	14	4	75
Tenth District										
Lake	331	242	243	–1	68	13	9	8	6	66
Porter	31	26	25	1	5	....	1	....	....	8
*Jasper-Newton	23	13	14	–1	6	....	3	1	....	6
Total	385	281	282	–1	79	13	13	9	6	80
Eleventh District										
Carroll	17	10	13	–3	6	....	2	....	....	6
*Cass	56	39	40	–1	11	....	4	2	1	15
Miami	30	22	21	1	7	....	....	....	1	4
*Wabash	34	24	29	–5	4	1	7	....	1	8
Huntington	28	20	21	–1	4	....	....	....	4	8
Howard	50	36	37	–1	9	1	5	....	3	16
Grant	81	53	50	3	23	1	2	2	3	18
Total	296	204	211	–7	64	3	20	4	13	75
Twelfth District										
*LaGrange	9	7	10	–3	2	....	2	....	....	1
Steuben	21	10	9	1	10	1	2	....	....	4
*Noble	32	26	27	–1	5	....	....	1	....	7
DeKalb	29	22	20	2	5	2	1	....	1	5
Whitley	16	11	11	....	1	....	2	....	3	2
Allen	211	173	170	3	20	5	10	5	9	68
*Wells	23	20	21	–1	3	....	2	....	....	6
*Adams	24	19	17	2	4	2	....	....	1	6
Total	365	288	285	3	50	10	19	6	14	99
Thirteenth District										
LaPorte	88	57	57	....	25	4	5	1	....	15
*St. Joseph	194	149	147	2	22	10	18	5	8	48
*Elkhart	90	77	76	1	10	2	3	2	1	25
Starke	6	4	....	4	2	1	....	....	....	2
Pulaski	9	8	5	3	....	1	....	1	....	2
Fulton	19	12	11	1	6	....	1	....	....	5
Marshall	36	28	27	1	3	....	2	....	3	10
Kosciusko	25	18	19	–1	3	1	5	1	....	6
Total	467	353	342	11	71	19	34	10	12	113
Summary by Districts										
1st District	309	233	221	12	47	7	29	4	8	78
2nd District	199	158	154	4	29	6	14	5	2	49
3rd District	202	136	134	2	46	8	15	5	4	50
4th District	178	135	135	....	24	1	14	5	7	39
5th District	219	164	165	–1	34	6	10	8	9	40
6th District	228	175	171	4	27	3	16	8	10	59
7th District	1050	698	696	2	289	3	44	19	24	275
8th District	270	201	207	–6	55	6	17	2	5	72
9th District	294	231	225	6	40	8	14	14	4	75
10th District	385	281	282	–1	79	13	13	9	6	80
11th District	296	204	211	–7	64	3	20	4	13	75
12th District	365	288	285	3	50	10	19	6	14	99
13th District	467	353	342	11	71	19	34	10	12	113
Total	4462	3257	3228	29	855	93	259	99	118	1104†

** Physicians are listed in the counties in which they hold membership; not in the counties in which they reside.*

† Military Service—Of the total number of Indiana physicians in service, 891 maintained a practice in the state prior to entering service and 213 were interns, residents or Indiana was their home address.

THE WAR

1. The secretary reported, as a matter of information, that Indiana has exceeded its quota of physicians for the armed forces by 26 per cent. "Indiana will not be required to send any additional doctors into service until the five states, New York, Massachusetts, Pennsylvania, Illinois and California, have met their 1942 quotas. Our situation now is changed from one of procuring physicians to a consideration of assigning physicians in 1943."

2. The secretary gave a report on the response received from the questionnaire sent to the county medical society secretaries regarding medical needs in the various counties.

3. *Stickers for physicians' automobiles.* The secretary reported that Dr. H. S. Leonard, chairman of the Committee on Civilian Defense, had appeared before the Executive Committee stating that a number of physicians had appealed to him for a sticker or some mark of identification for their automobiles so that they wouldn't be stopped or slowed in an emergency. The matter was taken up with Don Stiver, superintendent of state police,

and he approved the idea. Suitable stickers may be obtained free of charge from a Chicago Pharmaceutical company.

The suggestion was made that at the Secretaries' Conference on January 24 the secretaries be informed of the opportunity to secure these emblems free for their membership. The secretaries of the various societies then can write to this company and get a pair of stickers for each member of their society if they desire them.

4. *Pre-military examinations of high school students.* Following discussion, the Council instructed the secretary to communicate with General David N. Grant, who is to be one of the principal speakers at the Secretaries' Conference, asking him to clarify this matter of pre-military medical examinations for high school students when he comes to Indianapolis on January 24.

LEGISLATIVE MATTERS

1. *Pre-marital blood examination law. Dr. Forster*—"A year ago the Council went on record as taking up with the State Board of Health the question of this pre-marital blood examination law and the abuses of it. Lake County has left it to me to bring this before the Council. I think the bill will have to be amended and I think the Legislative Committee is the committee to handle that." The Council took no action on this matter.

2. *Immunization bill. Dr. Clark*—"I introduced the resolution at French Lick, recommending the introduction of this immunization bill. Frankly, I feel that, politics or no politics, it is the medical profession that is responsible for the public health. Doctors are considerably overworked without an epidemic. If you shut down Allison's because of a smallpox epidemic, you have knocked out as much as two or three divisions at the front. I move that we introduce this bill." (Taken by consent.) (Mr. Stump suggested that this bill be referred to the Military Affairs Committee as a wartime measure.)

NEW BUSINESS

1. *Contract with editor of* THE JOURNAL. The formal contract, prepared by the attorney of the association, with Dr. Shanklin, editor of THE JOURNAL, was signed by Dr. F. T. Romberger, chairman, for the Council.

2. *Nominations for Editorial Board.* Dr. Clauser nominated Dr. M. A. Austin of Anderson to succeed Dr. L. G. Montgomery.

Dr. Clark nominated Dr. Minor Miller of Evansville to succeed Dr. Herman M. Baker.

Motion made, seconded, and carried, that nominations be closed.

3. The following future medical meetings were called to the attention of the Council:

(1) Fifth Annual Congress on Industrial Health, Chicago, January 11 to 13, 1943.

(2) Secretaries' Conference, Indianapolis, January 24, 1943.

(3) National Conference on Medical Service, Chicago, February 14, 1943.

(4) Indiana's Industrial Health Conference, Indianapolis, February 25 and 26, 1943.

4. The councilors were presented correspondence regarding serological tests in the state laboratory. This was to be discussed by Dr. Thurman B. Rice, secretary, and Dr. Clyde Culbertson, chief of the Bacteriological Laboratory, State Board of Health, at the luncheon meeting.

ELECTIONS FOR 1943

1. *Executive Committee members for 1943.* Dr. Clark moved that Dr. C. A. Nafe and Dr. E. O. Asher, the present members, be re-elected for 1943. Motion seconded by Dr. Forster, and carried.

2. *Chairman of the Council.* Upon the motion of Dr. Clark, unanimously seconded, Dr. F. T. Romberger was re-elected chairman of the Council for 1943.

LUNCHEON

The Council recessed at one o'clock for luncheon. The following guests and committeemen were present and gave brief reports of the activities of their offices:

Dr. C. A. Nafe, chairman, Executive Committee—"The Executive Committee has met frequently as usual. At this time I will discuss just one thing and that is the question of malpractice insurance. During the last two years here in Indianapolis, and it has been reported to the Executive Committee from other parts of the state, the cost of malpractice insurance from the regular companies has increased considerably. In my case it has increased from $20.00 in 1940 to $40.63 for this year for the same coverage of $10,000 and $30,000. In other words, it has more than doubled. We are trying to find out why it is costing more than twice as much now as it did two years ago. The Connecticut State Medical Society has a group policy with a regular insurance company, costing $12.50 for $10,000 and $25,000 coverage. Another contract is for $15,000 and $25,000 and costs $16.75; another for $25,000 and $25,000 costs the members $17.80. It would seem to me, since we cannot get at the basis why our cost is going up so rapidly, that we should investigate and ,if possible, present to the next meeting of the House of Delegates, with the approval of the Council, a plan whereby we would have a group policy with one or two insurance companies, if we can arrange a rate comparable to what they have in Connecticut. We should look into this and see if we can reduce the cost to our members."

Dr. Thurman B. Rice, secretary, State Board of Health. "I would like to call your attention to the fact that the State Board of Health has lost its four top men in three months, October, November and December. There happened to be pretty good spares for filling those situations, but there aren't any more spares. It is sort of a critical time in

that respect and we have been making a desperate effort to get increases in salary because our salaries are far below other states.

"The biggest problem in Indiana, I think, from a public health standpoint, is syphilis. The survey on the second million Selective Service men shows Indiana as having the most syphilis of any state north of the Ohio River. There are certain reasons why that is true that would explain part of it. We believe our laboratory in this state, led by Mr. Mazzini, is more sensitive in this respect than any other in the United States. It looks as if that is responsible for 25 per cent of the increase. Of course, there is considerable pressure from the United States Public Health Service, the Army and the Navy, to do something about our syphilis problem. That pressure we hope will not be such as to cause us to give up our own ideas in regard to handling these things, but I would like you to know there is heavy pressure and some reason for it. We do need to make improvement in our method of finding and holding the cases under treatment until they are really pretty well taken care of. We do ask the help of the medical profession in reporting syphilis. There was a time when it was considered a violation of medical ethics to report syphilis to the health authorities. Reports are kept confidential. It is very important that our records be as complete as possible, and so we are urging all doctors to report all cases of venereal disease.

"Now, as to some matters pertaining to legislation. We haven't a big program this time, but perhaps some things should be mentioned. For example, the stream pollution law of 1935 was a good law, and it got caught in the crush of the 1941 legislature and was unintentionally repealed. This law should be re-enacted.

"Something ought to be done so people outside of the state can get birth certificates easier than they now can. We have no records previous to 1907 at all except in the local communities. This can be corrected by enactment of the legislature only.

"There should be a change in the marital examination law. The idea of mailing in the blood and mailing the report back didn't work out as well as I thought it would. There should be a required waiting period if a delay in granting license is desirable. The requirement that the specimen and the report go through the mail should be repealed.

"At the present time, considering how busy doctors are and how hard it is to get health officers, we think we favor this bill introduced by Senator Lane to the effect that the county clerk shall be the local registrar and shall collect death and birth certificates instead of the health officer, that he shall turn them in, and that he shall have the power to issue copies of the old records previous to 1907. Since 1907, those records are at the State Board of Health. We are a little loathe to give up any of the duties of the medical profession, but it does seem that this local-clerk method will work out. The United States Census Bureau favors that method."

Dr. C. R. Bird, chairman of the War Participation Committee, introduced Major Glen W. Lee, medical director of the Indiana Selective Service System, and a member of the War Participation Committee, who gave the following report:

Major Glen W. Lee, state medical officer, Indiana Selective Service System. "Dr. Charles Bird, chairman of Medical Procurement and Assignment Committee for Indiana, addressed his committee this morning, giving a review of the activities of the committee from its inception to date, and also reviewing the functions of the county committees which have co-operated with this state committee. These county committees, formerly known as 'M-day Committees,' have been re-designated 'War Participation Committees of the County Medical Societies.' A review of a few unfortunate decisions or mistakes was made; and, for the benefit of Colonel Meriwether of the United States Public Health Service, who attended the committee meeting, there was discussion of areas which have been claimed to be critical because of the shortage of adequate medical care.

"I gave a report on the proceedings of a Procurement and Assignment meeting called by Dr. Henderson of Louisville, chairman of the Procurement and Assignment Committee for the Fifth Service Command, at which five addresses were given or conducted by Commander Lapham, the new executive officer of the National Procurement and Assignment Service. These papers were on the following subjects: (1) past operation and future plans of the Procurement and Assignment Service; (2) the program for allocation of Public Health officers in areas of critically inadequate medical manpower; (3) student program for induction of 250,000 students into the E.R.C., to include medical, dental, and veterinary students; (4) the Procurement and Assignment quotas for 1943 (Quota of physicians from Indiana is fourteen for 1943, to be delivered in ten monthly installments, from January through October); and (5) recommendation of National Procurement and Assignment Service and War Manpower Commission for necessary revision of laws to allow temporary licensure.

"Commander Lapham recommended that an advisory committee be requested to serve, consisting of a representative from the State Hospital Association; state associations of medicine, dentistry, and veterinary medicine; the Public Health; the Red Cross; an industrialist; and the medical school—this committee to serve in an advisory capacity to the State Procurement and Assignment chairman.

"Commander Lapham gave us the ratio of physicians to civilians in Indiana which had been estimated by the National Procurement and Assign-

ment Service. The physician over sixty-five years of age was considered only one-third effective and a given factor was used to eliminate from count those physicians not caring for patients, such as laboratory technicians and those engaged in research. Using these factors, the estimate was one effective physician to every 1628 civilian population in Indiana.

"I believe that we may be able to find the fourteen physicians to fill Indiana's quota from among interns and residents who have been deferred by Selective Service and who have not previously been commissioned. This quota is in addition to those physicians ordered to active duty who already hold commissions in the Medical Department which they had accepted while students or interns.

"I would like to remark on Dr. Rice's report that Selective Service is starting in January to accept three known active syphilitic cases per month from each local board. These cases will be treated while they are in military service."

Dr. W. D. Gatch, dean, Indiana University School of Medicine. "The problems of the Medical School in the last year have been almost overwhelming. I want to thank Dr. Bird and Dr. Newcomb and the members of their committees for making it possible for us to keep the Medical Center in operation. When General Hospital No. 32 leaves we shall have lost about sixty-two of our teachers. In spite of this loss we have not lowered our standards of teaching. This is no time to lower standards.

"We have been asked to select students for the 1944 classes. This is in direct opposition to former instructions that we select no premedical student earlier than nine months of the time of his enrollment.

"A medical student is a commissioned officer on detached duty. He is under obligation to devote all of his time and energy to prepare himself for service in the armed forces. I cannot speak too warmly of the general spirit of the men on the faculty in these trying times. They have gone ahead teaching and have kept the school running in a very satisfactory way, although they were overworked and worried. I believe the worst is now over. The faculty has got its second wind. We have streamlined the curriculum and have emphasized war medicine more than we have in the past.

"Since the academic year is now nine months long and the intern year twelve months long, there is an overlapping of intern service. This causes some confusion, but I do not believe that the problem will be a serious one because there is a great demand for interns.

"I do not know when the students will go into uniform. I think it will be by the first of May. Then they will be housed in barracks and will be privates at fifty dollars a month. It has been trying to me to answer the inquiries of parents of boys seventeen and eighteen years of age who wish to enter the Medical School. The best advice to give them is to have the boys enter college and go on with their studies as they would in normal times. It is reasonable to suppose that a boy who does this will have a better chance of remaining in his premedical work than a boy who has not entered college at all.

"I wonder what need the armed services have for such vast numbers of medical students. Medical schools are now turning out, or soon will be turning out, ten thousand medical students a year, which is double the number before the war. We are accepting all the students our facilities will permit—128 students."

Dr. Clyde G. Culbertson, chief, Bacteriological Laboratory, State Board of Health. "For a number of years there has been some difficulty between the state laboratory and the various laboratories over the state. The general situation here is that the state laboratory is greatly overworked. We are running as many as four thousand bloods a day. At this time we certainly urge everyone from every part of the state to use his own local laboratory. The feeling of the State Board of Health has been, for the past ten years at least, that we should encourage the use of the private laboratories in every community of the state. The basis on which we accept specimens at the present time is an unrestricted one. In other words, there is nothing to sign on the card—no stipulation of the indigency of the patient. That is a requirement of the Federal Government in order that we receive funds from the Government. If the patient is able to pay and the doctor has a good laboratory in the community, the doctor should use that laboratory. The matter should rest in the hands of the physician as to where he should send the specimen. We should like to call your attention to the advisability of urging all physicians to use their local laboratories."

Dr. Gordon W. Batman, chairman of Committee on Convention Arrangements, spoke of the series of instructional courses which his committee had suggested be given during the annual session. "These courses would have to be given the first thing in the morning and in the late afternoon. Late in the spring the membership would be circularized, requesting their reaction to such courses and asking for a preliminary choice of listed courses which they might wish to attend if offered this opportunity. The membership would be circularized again in August with questionnaires listing the courses actually to be offered. If in this list of courses the doctor finds what he wants, he would be asked to pay the small fee of $1.00 for each of the courses he wishes to attend. The total number of courses that a doctor could attend would be four. I would like to get an expression from the Council as to whether or not such a program would be interesting and of benefit to the doctors, and also whether or not it is proper and advisable to charge a fee for such courses. I be-

lieve the fee is extremely important. If the doctor pays a fee he will be there."

Dr. Clark. "Since it is impossible for the medical school in its present condition to go ahead with postgraduate education at this time, and since this is a good stop-gap arrangement, I move that the Committee on Convention Arrangements be instructed to proceed with its plans in working out details as it sees fit, and also that the committee be instructed to charge a fee of $1.00 for these courses." (Motion seconded by Drs. Mitchell and Wadsworth, and carried.)

Dr. C. L. Rudesill, chairman, Committee on Scientific Work.

Dr. H. G. Hamer, delegate to the A.M.A. and chairman of the Bureau of Publicity. "I merely wish to say that the work of the Bureau has been somewhat curtailed owning to the enlistment of Doctor Taylor in the Navy and the resignation of Doctor Gastineau. However, with the appointment of Dr. Ben Moore and Dr. Karl Ruddell, we expect to revive our work in the coming year." Both of these new members, as you all know, are keenly alive to the problem of the medical profession and can be depended upon to contribute much to the activities of the Bureau.

Dr. Norman Beatty, co-chairman, Legislative Committee.

Dr. J. William Wright, co-chairman, Legislative Committee.

Dr. H. S. Leonard, chairman, Civilian Defense Committee. "A year ago I was asked for a report. Since that time it has been our job to organize the whole state of Indiana by counties. That has been done and the cooperation we have received in that work has been very gratifying. A number of the Emergency Medical Service chairmen have been called into service and have had to resign, and others have been appointed to take their places. In many instances the doctors are so busy that they have had to appoint a lay deputy to serve these particular men. So far, I think everything in the way of organization has been very gratifying."

Dr. Herman M. Baker, chairman, Committee on Medical Education and Hospitals. "The committee has done little this past year. With the new trimester arrangement in the University, the question of postgraduate medical training is going to be a real problem. I think Doctor Batman's suggestion for the short courses at the state meeting is an excellent one and it may help to fill the gap. So far as the state Committee on Medical Education is concerned, and in view of existing conditions—the great number of men who have gone into service and the need to stay on the job—the general feeling is that the best thing to do is to let things slide for the duration."

Dr. A. M. Mitchell, chairman, Committee on Secretaries' Conference. "Two weeks from today the secretaries' conference will be held at the World War Memorial, with dinner in the evening at the Athletic Club. On the program we will have Doctor Donaldson of Pittsburgh, who will represent the A.M.A. War Participation Committee; General Grant of the Air Corps; Doctor Henderson of Louisville, and Albert McCown of the American Red Cross. A lot of good information will come out of this meeting. It will be well worth your while to attend."

Dr. E. S. Jones, chairman, Committee on Industrial Health. "Dr. C. D. Selby, chairman of the Advisory Committee on Industrial Health of the Procurement and Assignment Service, asked that we prepare some sort of a course for industrial physicians. Doctor Spolyar, with Doctor Gatch, has worked out a program. This is to be held on February 25 and 26 in Indianapolis. We are very anxious that this is put over because this is supposed to be a test for the medical societies of the United States and for the A.M.A. I ask you to take this back to your counties and see that the attendance is good.

"The committee approved the introduction of a bill in the present session of the legislature, providing for the employment of physically handicapped persons which often is not done at present because of certain provisions of the Workmen's Compensation Act. We recommend that a meeting be called to which will be invited the state director of rehabilitation, head of the Department of Labor, representatives from the C.I.O. and A. F. of L. state superintendent of public instruction, head of the State Employment Bureau, head of the American Legion, representatives from the State Chamber of Commerce and the Industrial Board, director of the State Division of Industrial Hygiene, and Representatives Henley and Lee, who introduced H.B. 11.

"I notice in this morning's *Star* that there is a bill (H.B. 11) being presented by the Industrial Board along this line. This bill is of such extreme importance that this meeting should be held immediately to see that when this bill is passed it will be one that will hold water and that it will be of value in the future. I would suggest that this meeting be called immediately and that action be immediately taken to get this bill into proper form. As to who the chairman should be, I think Tom is the ideal man for that."

(Dr. Forster made the motion that the president of the Indiana State Medical Association appoint such a committee as outlined by Doctor Jones. Motion seconded by Dr. Wadsworth, and carried. Mr. Stump suggested, and it was taken by consent, that "the motion might include the suggestion that the executive secretary be empowered to invite those outside of the Association to attend the committee meeting and take part.")

Dr. E. O. Asher, chairman, Medical Relief Com-

mittee. "The work of the Medical Relief Committee with the State Welfare Board puts me in the position of a beginner, and there is a lot yet for me to learn. There is one thing which has come up: all members of the welfare board and the doctors with whom I have talked believe this to be a forward step, an effort to have an amendment to the Indiana welfare law, which will do this. Federal funds are provided to help the Indiana Welfare Department, if certain provisions are carried out, in the payment for medical relief. Such payments are made to the recipient. They are in turn supposed to pay the doctor. Some of them do and many of them do not. There is no way to make a fellow pay, whether he is an old-age recipient, blind, or a dependent child. The amendment is proposed to do this. The doctor will make out his statement for the services he has rendered these people, saving a lot of paper work that is now necessary, and the county welfare department will send the doctor a check for the work he has done during the month. If such a thing is done, then the state does not receive federal funds for the care of the sick. Taking it over the state, that is not a large bill and nobody in the welfare department feels that that will be a handicap, the purpose being to see that the doctor gets his money. Also, it adds two other things, one is some aid to dependent wives of soldiers who are in the service, or their children, and also it allows these bills to be paid even if the patient has died. I have briefly and crudely explained this. It is a worthy amendment. I would like to have approval of this by the Council before I submit it to the Legislative Committee. The help for steering this through the legislature is assured by the author of this amendment, who is Virgil Sheppard."

Dr. W. U. Kennedy, director of Research on Sickness Insurance. "I happen to be president of the Board of Welfare in my county. We have had this situation up before us. We have the authority to jump the allotment of any indigent to a maximum of $40.00. We usually put on $20.00 a month, which is given only when the recommendation is made that the recipient needs it for medical service. If he doesn't pay his doctor, it is immediately taken off. The applicant is definitely told that the money is given him for that purpose only. This plan works for us.

"At present I am having conducted a state-wide investigation as to the experiences of the various county boards with this payment for medical services.

"I want to mention here the Beveridge report which is available at the bookstores now. The scheme in the Beveridge plan takes every public service and puts it under federal control. It will be worth your while to read the plan. Coming events cast their shadow before."

Dr. H. F. Nolting, chairman, Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health. "The committee has had no meeting alone or in conjunction with the State Bureau. There is not much to report. Rehearsing a little bit on what some of the members possibly already know in regard to obstetrical and child-aid for the wives of the men in service in the rank below commissioned officers, it was proposed about a year or so ago that this service was to be remunerated on a private basis, on the free choice of physician and hospital, and a fee probably as much as $35.00 could be charged for prenatal and postnatal care, and on pediatrics probably as much as $10 or $15 could be charged for looking after the child during the first year. That was fine; everybody thought that was all right. Then came along a much more limited program which made out of Indianapolis, in regard to Fort Harrison here, a limited area. I think the amount of money provided was $10,000. The women were to go into the local hospitals and then be taken care of by staff physicians. This had to be done because of the limited funds. This came to the attention of the committee and the committee wasn't very enthusiastic about it. At that time Doctor Mettel said they were still trying to get a large enough appropriation to put it on a nation-wide basis and have free choice of physicians. Ten thousand dollars sounds like a quarter to the average man when compared with the billions that are being spent. . . . I just wonder how much organized effort there was among the state and territorial health officers, whether there has been pressure brought to bear, to make this cover more than just a small fee. I am wondering if, through our state Council and State Medical Association, this might be revised and some pressure brought to bear in Congress, and in particular brought to the attention of the A.M.A., and we might be able to do something about it."

THE CHAIRMAN. "I would like to suggest that you formulate your request and send it to the state headquarters' office for the consideration of the Executive Committee."

Dr. Nafe. "The House of Delegates went on record as opposed to this."

Dr. Nolting. "There was the regular report and an appended report. My understanding was that the turndown was on the appended report."

Dr. W. D. Little, chairman, Committee on Study of High School Athletics.

Dr. Will Thompson, chairman, Committee on Prevention of Traffic Accidents. "I took a copy of the resolution formulated by my committee and passed by the House of Delegates at French Lick and gave it to Don Stiver. When I signed up for my driver's license last week, I saw on the application practically our entire resolution. It used to say on the application that it would be 'a felony.' My committee changed that to say that it would be 'a penitentiary offense.' I thought that it would have to be an act of the legislature, but it's on there."

Dr. C. W. Rutherford, State Supervising Ophthalmologist, State Department of Public Welfare. "Trachoma is a disease that leads to blindness because of its complications; it is a communicable disease and is reportable as such. There are between 2,400 and 2,500 persons receiving monthly assistance from the Department on account of blindness. About 10 per cent of them are blind from trachoma. This one disease is responsible for an outlay of approximately $60,000.00 annually. Control is of economic importance to the state and to the afflicted individual. Under the law no woman under eighteen or man under twenty-one can receive consideration from the department, and it is this age group that is most amenable to preventive treatment.

"The Council or Legislative Committee should consider the propriety of introducing legislation that will bring these children into the eye-treatment category. There are three public agencies that can be made available. The township trustee is a local official, but the problem is properly a state function, and should be administered by a state organization to secure uniformity in procedure applicable to all localities—the State Board of Health, if it is legally empowered to accept responsibility. The Department of Public Welfare has had encouraging results in treating trachoma among eligible persons, but eligibility does not depend upon blindness or impending blindness alone, and so the number reached is limited. If a considerable number of persons can be prevented from becoming public charges on account of blindness from trachoma, the state should be well rid of the disease in from twenty-five to fifty years, and the treatment program will pay for itself in funds saved eventually."

THE CHAIRMAN. "The chair will take it by consent that the Council wishes this report to be referred to the Legislative Committee."

Albert Stump, attorney for the association.

R. W. Waterson, executive secretary, Lake County Medical Society.

There being no further business, the meeting was adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

COUNTY SOCIETIES

COUNTY MEDICAL SOCIETY OFFICERS

(Numerous reports were published in the January issue; these additional reports have been received since publication of that issue.)

ADAMS COUNTY MEDICAL SOCIETY:
President, Gerald J. Kohne, Decatur
Vice-president, James M. Burk, Decatur
Secretary-treasurer, Myron L. Habegger

BOONE COUNTY MEDICAL SOCIETY:
President, O. E. Brendel, Zionsville
Vice-president, Ralph Harvey, Whitestown
Secretary-treasurer, John R. Porter, Lebanon

CLARK COUNTY MEDICAL SOCIETY:
President, W. Marshall Varble, Jeffersonville
Vice-president, H. R. Wilber, Jeffersonville
Secretary-treasurer, Ernest P. Buckley, Jeffersonville

CLAY COUNTY MEDICAL SOCIETY:
President, John C. Shattuck, Brazil
Vice-president, H. M. Pell, Brazil
Secretary-treasurer, Robert K. Webster, Brazil

ELKHART COUNTY MEDICAL SOCIETY:
President, Samuel T. Miller, Elkhart
Vice-president, J. S. Slabaugh, Nappanee
Secretary-treasurer, O. E. Wilson, Elkhart

FAYETTE-FRANKLIN MEDICAL SOCIETY:
President, Francis B. Mountain, Connersville
Vice-president, Stanley B. Gordin, Connersville
Secretary-treasurer, Roy H. Elliott, Connersville

FLOYD COUNTY MEDICAL SOCIETY:
President, J. Y. McCullough, New Albany
Vice-president, A. P. Hauss, New Albany
Secretary-treasurer, G. I. Polhemus, New Albany

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY:
President, J. B. Owens, Veedersburg
Secretary-treasurer, Alvin R. Kerr, Attica

GREENE COUNTY MEDICAL SOCIETY:
President, Frank A. Van Sandt, Bloomfield
Vice-president, William F. Craft, Linton
Secretary-treasurer, George E. Moses, Worthington

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY:
President, Walter P. Morton, Indianapolis
Vice-president, Ralph L. Lochry, Indianapolis
Secretary-treasurer, William M. Dugan, Indianapolis

JASPER-NEWTON COUNTY MEDICAL SOCIETY:
President, R. H. Ruhmkorff, Goodland
Secretary-treasurer, W. G. Pippenger, Brook

JAY COUNTY MEDICAL SOCIETY:
President, Donald E. Spahr, Portland
Vice-president, George V. Cring, Portland
Secretary-treasurer, B. M. Taylor, Portland

KNOX COUNTY MEDICAL SOCIETY:
President, M. L. Curtner, Vincennes
Vice-president, Frederic Spencer, Vincennes
Secretary-treasurer, C. L. Boyd, Vincennes

LAKE COUNTY MEDICAL SOCIETY:
President, H. W. Detrick, Hammond
President-elect, D. F. McGuire, East Chicago
Secretary-treasurer, Harry Brandman, Whiting

LAPORTE COUNTY MEDICAL SOCIETY:
President, F. M. Fargher, Michigan City
Vice-president, R. M. Kelsey, LaPorte
Secretary-treasurer, Louis Moosey, Union Mills

LAWRENCE COUNTY MEDICAL SOCIETY:
President, Frank D. Martin, Bedford
Vice-president, Claude Dollens, Oolitic
Secretary-treasurer, Morrell Simpson, Bedford

MADISON COUNTY MEDICAL SOCIETY:
President, A. W. Elsten, Lapel
Vice-President, A. T. Jones, Pendleton
Secretary-treasurer, M. A. Austin, Anderson

MIAMI COUNTY MEDICAL SOCIETY:
President, F. M. Lynn, Peru
Vice-president, S. D. Malouf, Peru
Secretary-treasurer, E. L. Burrous, Peru

MONROE COUNTY MEDICAL SOCIETY:
President, Ben R. Ross, Bloomington
Vice-president, Naomi L. Dalton, Bloomington
Secretary-treasurer, H. S. Hepner, Bloomington

MORGAN COUNTY MEDICAL SOCIETY:
President, M. C. Pitkin, Martinsville
Secretary-treasurer, K. L. Dickens, Martinsville

ORANGE COUNTY MEDICAL SOCIETY:
President, John Spears, Paoli
Secretary-treasurer, C. E. Boyd, West Baden Springs

OWEN COUNTY MEDICAL SOCIETY:
President, R. H. Richards, Patricksburg
Secretary-treasurer, Julia S. Thom, Spencer

PARKE-VERMILLION COUNTY MEDICAL SOCIETY:
President, Joseph R. Bloomer, Rockville
Secretary-treasurer, A. E. Sabin, Dana

PERRY COUNTY MEDICAL SOCIETY:
President, E. E. Schriefer, Cannelton
Vice-president, J. E. Taylor, Leopold
Secretary-treasurer, E. R. Snyder, Troy

PORTER COUNTY MEDICAL SOCIETY:
President, Samuel E. Dittmer, Kouts
Vice-president, Carl M. Davis, Valparaiso
Secretary-treasurer, John R. Frank, Valparaiso

RUSH COUNTY MEDICAL SOCIETY:
President, Clarence W. Worth, Milroy
Vice-president, C. C. Atkins, Rushville
Secretary-treasurer, W. H. Nutter, Rushville

ST. JOSEPH COUNTY MEDICAL SOCIETY:
President, F. R. N. Carter, South Bend
Vice-president, C. M. Sennett, South Bend
Secretary-treasurer, George M. Rosenheimer, South Bend

STEUBEN COUNTY MEDICAL SOCIETY:
President, L. L. Eberhart, Angola
Vice-president, M. M. Crum, Angola
Secretary-treasurer, W. H. Lane, Angola

VIGO COUNTY MEDICAL SOCIETY:
President, M. B. Van Cleave, Terre Haute
Vice-president, Joseph C. Kunkler, Terre Haute
Secretary-treasurer, A. M. Mitchell, Terre Haute

WAYNE-UNION COUNTY MEDICAL SOCIETY:
President, H. E. Allen, Richmond
Vice-president, W. B. McWilliams, Liberty
Secretary-treasurer, Gladys Hill-Harmon, Richmond

LOCAL SOCIETY REPORTS

Carroll County Medical Society members held their annual business meeting at the Welcome Inn Cafe, at Delphi, on December tenth.

* * *

Decatur County Medical Society members met at Greensburg on December second. This was a business meeting.

* * *

Fountain-Warren County Medical Society members held a meeting at the Mudlavia Springs Hotel, at Kramer, on December third. Mr. Frank Hawley, director of the Warren County Public Welfare Department, was the speaker of the evening. Officers were elected. Eleven members were in attendance.

* * *

Greene County Medical Society members met at the Freeman Greene County Hospital, at Linton, on December seventeenth. This was a business meeting and officers were elected for 1943. Eight members attended the meeting.

Henry County Medical Society members met at New Castle on November nineteenth. Doctor R. L. Amos, of New Castle, was the speaker, his subject being "Castration for Prostatic Carcinoma." This was the first joint meeting of a rotating series of meetings of Henry, Hancock, Rush and Shelby Counties. Thirty doctors attended the meeting.

* * *

Huntington County Medical Society members held a meeting at Hotel Lafontaine, at Huntington, on December first. Moving pictures, in colors, were shown on "Caesarian Section," "Nasal Reconstructive Surgery," and "Treatment of Varicose Veins of Leg." Thirteen members were present at the meeting.

* * *

Johnson County Medical Society members held their November meeting at the Armory, at Franklin, on the twenty-fourth. Officers for 1943 were elected, committees appointed, and a civilian defense set-up was organized. Six members were present at the meeting.

* * *

LaPorte County Medical Society members met at Michigan City on November nineteenth. Dr. Wayne B. Slaughter, of Chicago, spoke on "The Treatment of Early Facial Injuries." Nineteen members were in attendance at this meeting.

At a meeting held on December seventeenth at the Rumley Hotel, at LaPorte, Dr. Maximilian Kern, of Chicago, was the guest speaker. His subject was "Endocrinological Types of Obesity." Twenty-four members attended the meeting.

* * *

Miami County Medical Society members held a dinner meeting at the Dukes Memorial Hospital, on December twenty-third, with election of officers for 1943. It was unanimously agreed that the Miami County Medical Society shall conduct physical examinations of all high school students over sixteen years of age, conforming with the National Education board requirements.

* * *

Parke-Vermillion County Medical Society members met at the Vermillion County Hospital, at Clinton, on December sixteenth. An election of officers for 1943 was held. Nine members were present at the meeting.

* * *

Randolph County Medical Society members met at Winchester, on December seventh. The annual banquet was held and officers were elected. Thirteen members were present at the meeting.

* * *

Spencer County Medical Society members held a business meeting, with election of officers, at Rockport on December fifteenth. Five members attended the meeting.

(Continued on page xix)

(Continued from page 122)

Tippecanoe County Medical Society members met at the Lincoln Lodge, at Lafayette, on November tenth. Doctor W. D. Gatch, dean of the Indiana University School of Medicine, spoke on "Abdominal Injuries." Thirty members attended this meeting.

At the annual business meeting held December eighth, at the Lincoln Lodge, officers were elected for 1943. Thirty-five members were present at the meeting.

* * *

Wabash County Medical Society members held a meeting at the Sheller Hotel, at North Manchester, on November fourth. Professor A. R. Eikenberry, of Manchester College, spoke on "Doctors and the Jitters." Nine members were present at this meeting.

Books

BOOKS RECEIVED

THE 1942 YEAR BOOK OF GENERAL MEDICINE. Edited by George F. Dick, M.D.; J. Burns Amberson, Jr., M.D.; George R. Minot, M.D., S.D., F.R.C.P. (Edinburgh and London); William B. Castle, M.D., S.M., M.D. (Hon.) Utrecht; William D. Stroud, M.D.; and George B. Eusterman, M.D. 848 pages, with 178 illustrations. Fabrikoid. Price $3.00. The Year Book Publishers, Inc., Chicago, 1942.

* * * *

A VENTURE IN PUBLIC HEALTH INTEGRATION. Papers presented at the 1941 Health Education Conference of the New York Academy of Medicine. 56 pages. Cloth. Price $1.00. Columbia University Press, New York, 1942.

* * * *

THE 1942 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY. Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. 424 pages. 302 illustrations. Cloth. Price $3.00. The Year Book Publishers, Inc., Chicago, 1942.

* * * *

FOOD FOR THOUGHT. A treatise on the utilization of farm products for producing farm motor fuel as a means of solving the agricultural problem. By Herman F. Willkie and Paul J. Kolachov. 209 pages, including several illustrations. Cloth. Price $2.00. Indiana Farm Bureau, Inc., Indianapolis, 1942.

* * * *

FUNDAMENTALS OF PSYCHIATRY. By Edward A. Strecker, M.D., Professor of Psychiatry and Chairman of the Department, Undergraduate School of Medicine, University of Pennsylvania. 201 pages. Illustrated. Cloth. Price $3.00. J. B. Lippincott Company, Philadelphia, 1942.

* * * *

MENTAL ILLNESS: A GUIDE FOR THE FAMILY. By Edith M. Stern, with the collaboration of Samuel W. Hamilton, M.D. 134 pages. Cloth. Price $1.00. The Commonwealth Fund, New York, 1942.

* * * *

THE PRINCIPLES AND PRACTICE OF MEDICINE. (Fourteenth Edition). Originally written by Sir William Osler, Bart, M.D. By Henry A. Christian, M.D., Hersey Professor of the Theory and Practice of Physic, Emeritus, Harvard University, Boston. 1475 pages. Cloth. Price $9.50. D. Appleton-Century Company, Inc., New York, 1942.

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BOOKS REVIEWED

THE NATIONAL FORMULARY. Seventh Edition. Prepared by the Committee on National Formulary by the authority of the American Pharmaceutical Association. 690 pages. Fabrikoid. Price $6.00. American Pharmaceutical Association, Washington, D.C., 1942.

The seventh edition of the National Formulary is a complete and comprehensive classification of Monographs on Drugs, Chemicals and Preparations; Reagents and Preparations for Use in the Clinical Laboratory; Ingredients of Reagents and Preparations for Use in the Clinical Laboratory; General Tests, Processes and Apparatus, together with a History of the National Formulary. The information is made readily available by a carefully worked out index.

INFANT NUTRITION. A Textbook of Infant Feeding for Students and Practitioners of Medicine. By Williams McKim Marriott, B.S., M.D., Late Professor of Pediatrics, Washington University School of Medicine, Physician in Chief, St. Louis Children's Hospital, St. Louis, Missouri; revised by P. C. Jeans, A.B., M.D., Professor of Pediatrics, College of Medicine, State University of Iowa, Iowa City. Third edition. 475 pages, with 31 illustrations. Cloth. Price $5.50. The C. V. Mosby Company, St. Louis, 1941.

Dr. William McKim Marriott was a practical man. In 1930 he wrote a practical book on infant nutrition in which he summarized the then present-day knowledge concerning nutritional requirements of infants.

The second edition of this book appeared in 1935.

Now the third edition has been printed. Through the competent guidance of Dr. P. C. Jeans the book still retains its original purpose. As stated in the preface to the third edition "The purpose is to bring together such facts and ideas as have a practical bearing on infant nutrition and to present them in such a way as to make them useful to the practitioner and student."

The pediatrician should not feel any great need for such a book as this. But in these critical times, throughout our country, the burden of infant feeding will fall on the shoulders of the general practitioners. Many of these men have not fed babies for years. They are all "at sea" when it comes to constructing a formula. They know vaguely that babies need orange juice and cod liver oil, but these men are in a wilderness of doubt when it comes to the whys and wherefores and what to do when anything goes wrong.

Here is the right book for all those who want help and guidance. It is clearly and concisely written—it is readable. The chapters on breast and artificial feeding answer most of the questions with which mothers bother doctors.

The remainder of the book is concerned with a few of the more common pathological conditions which confront the baby's doctor. The therapeutic advice for treating these conditions can be of inestimable value to one in doubt.

It is a book that every doctor who treats infants should own.

MARTHA SOUTER, M.D.

A.M.A. COUNCIL ON PHARMACY AND CHEMISTRY REPORTS FOR 1941. Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1941, with the Comments That Have Appeared in The Journal. Price $1.00. Chicago: American Medical Association, 1942.

The Council on Pharmacy and Chemistry recently issued the thirty-third edition of the Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association. This volume contains in compact form not only the reports of the Council which have been published in THE JOURNAL during the past year but also some additional reports which were not considered of sufficient importance to be published in THE JOURNAL. The reports may be divided into four classes: reports rejecting products as not being acceptable for inclusion in New and Nonofficial Remedies, reports omitting from New and Nonofficial Remedies products that have previously been accepted, reports on the nomenclature of various substances and reports in which the Council gives decisions of general interest or summarizes the latest scientific knowledge concerning certain topics. The last classification includes the largest number of reports. One article deals with the developments in bacteriophage therapy since the previous report of the Council in 1934. Other reports bring to the present day the status of such products as aluminum hydroxide preparations, antipneumococcic serums, cyclopropane, human blood plasma and serum, human convalescent poliomyelitis serum, human convalescent mumps serum and sulfadiazine. Such topics as ion transfer (iontophoresis), halogenated vegetable oils for bronchography and the problem of lipid pneumonia and the sympathomimetic amines as epinephrine substitutes are discussed. The nomenclature reports deal for the most part with the Council's adoption of nonproprietary designations for comparatively new products, such as diethylstilbestrol, menadione and sulfadiazine. Explanations are given for the omission at this time of products which have previously been included in New and Nonofficial Remedies. In most cases the N.N.R. description is included in the report as a matter of record. The volume also includes the reports rejecting various products—which have either been submitted by the manufacturer or considered on the Council's own initiative—and which have been found not acceptable for inclusion in New and Nonofficial Remedies. Also incorporated is a brief summary of the decisions arrived at by the Council at its latest meeting.

FOOD CHARTS: FOODS AS SOURCES OF THE DIETARY ESSENTIALS prepared by a joint Committee of the Council on Foods and Nutrition of the American Medical Association and of the Food and Nutrition Board of the National Research Council. Paper. Price 10 cents.* P. 20. American Medical Association, Chicago, 1942.

Current interest in nutrition is at a high level and the subject merits all the attention which it is receiving. Information about the composition of foods now is on a quantitative basis. A forceful presentation of some facts about foods as sources of the dietary essentials is provided by the present illustrated essay, which has been prepared by a joint committee of the Council on Foods and Nutrition of the American Medical Association and of the Food and Nutrition Board of the National Research Council. There are eight charts showing the contribution that individual foods may make with respect to the needs for protein, calcium, iron, vitamin A, thiamine, riboflavin, nicotinic acid, and ascorbic acid. A feature of these graphic presentations is that the values are presented in terms of the proportion of the daily requirements which are supplied by typical servings of each food. The requirements selected are the Recommended Daily Allowances of the Food and Nutrition Board of the National Research Council. The charts show, for example, that a serving of about 3½ ounces of cooked greens (beet, kale, chard, mustard, spinach, turnip) will supply more than 10,000 International units of pro-vitamin A, the daily allowance of which is 5,000 International units. An orange of average size, or half a grapefruit, or a serving of fresh strawberries will supply the 75 milligrams of ascorbic acid which is considered

to be a desirable intake of vitamin C. It is interesting to note the unique value of milk as a source of calcium, protein and riboflavin. There is a descriptive paragraph or two about each of the charts. In addition the booklet reproduces the table of Recommended Dietary Allowances and also provides the values of Minimum Dietary Requirements developed by the Food and Drug Administration for purposes of labeling special dietary foods. This little essay thus provides considerable factual information about foods as sources of the dietary essentials.

* Quantity Prices on request.

NEW AND NONOFFICIAL REMEDIES, 1942. Contains descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1942. Cloth. Price, postpaid, $1.50. Pp. 671—XCVII Chicago: American Medical Association, 1942.

Perhaps the most important feature of this new volume of New and Nonofficial Remedies is the radical rearrangement it has undergone, which it is believed will make the contents more accessible and therefore more valuable to the physician or other interested readers. Heretofore, the classification of products has been basically that of chemical relationship—the new arrangement is primarily according to therapeutic use, chemical classification being introduced by means of subheadings. In addition, the typographic style has been changed so as to give greater prominence to the products of individual manufacturers. No valuable feature has been sacrificed. The book still fulfills its function of establishing chemical standards for new and nonofficial preparations which the Council has found to be useful or to give adequate promise of usefulness in the treatment or prevention of disease. Its function as a guide to the most recent advances in therapeutics has been greatly enhanced.

Careful examination of the general discussions under the various headings and subheadings shows that the Council has admirably performed its annual task of keeping the text abreast with the progress of medicine. The authoritative and compendious section of the sulfonamide derivatives is an outstanding example. So also is the chapter, Vitamins and Vitamin Preparations for Prophylactic and Therapeutic Use. Equally important though less extensive revisions have been made in such sections as, Aluminum Compounds, Dextrose, Gonadotropic Substances, Liver and Stomach Preparations, Ovaries, Parathyroid, Pituitary, and Testes.

Among the newly accepted drugs are: Acetyl-Beta-Methylcholine and the proprietary brand, Mecholyl Chloride, proposed for use by iontophoresis, orally and subcutaneously as a parasympathetic stimulant; Adrenal Cortex Extract for parenteral use in the treatment of Addison's disease or of adrenal insufficiency of other types as well as prophylactically in surgical procedures involving the adrenal cortex; Aluminum Hydroxide Gel with the proprietary brand, Creamalin, for oral use as an adjunct in the treatment of peptic (gastric and duodenal) ulcer; and Normal Human Serum and Normal Human Plasma.

Others worthy of mention are: Cyclopropane, another general anesthetic, now included in the U.S.P.; Amylcaine Hydrochloride, another proprietary local anesthetic, and Pernoston Sodium, the sodium salt of the previously accepted proprietary barbital derivative, Pernoston.

The indices of the new volume of New and Nonofficial Remedies are of the same order and plan as in previous editions. A general index lists accepted articles, including those not described. This is followed by an index to distributors in which appear all the Council-accepted articles listed under their respective manufacturers. Finally, a bibliographical index is added for listing proprietary and unofficial articles not included in N.N.R. This includes references to the Council publications concerning each such article as has appeared in *The Journal of the A.M.A.*, Reports of the Council on Pharmacy and Chemistry, Propaganda for Reform, Vol. 1 and 2, or Reports of the A.M.A. Chemical Laboratory.

ABSTRACT

SAYS COLOR BLINDNESS IS CONGENITAL

"Color blindness is a congenital defect and in the true sense of the term is never acquired," *The Journal of the American Medical Association* for November 28 says in answer to an inquiry. "Extraneous conditions . . . have no influence on the color perception, which may vary from complete absence of color recognition to mere inability to differentiate various shades. There is no known correction for this condition despite the claims of some optometrists."

INDIANA STATE BOARD OF HEALTH
BUREAU OF COMMUNICABLE DISEASES

Monthly Report—December, 1942

Diseases	*Dec. 1942*	*Nov. 1942*	*Oct. 1942*	*Dec. 1941*	*Dec. 1940*
Tuberculosis, primary	2	0	10	0	0
Tuberculosis, active	870	74	124	74	86
Tuberculosis, arrested	7	13	17	5	0
Chickenpox	342	292	120	271	459
Measles	178	74	47	86	99
Scarlet Fever	195	189	204	353	431
Smallpox	20	8	1	11	5
Typhoid Fever	4	4	12	6	10
Whooping Cough	71	104	138	92	59
Diphtheria	24	30	36	32	43
Influenza	47	48	63	116	1422
Pneumonia	109	96	84	79	75
Mumps	189	131	123	26	132
Poliomyelitis	2	8	17	3	11
Cerebrospinal Meningitis	9	2	1	2	1
Undulant Fever	2	1	4	2	6
Tularemia	8	3	0	67	44
Vincent's Angina	23	7	3	1	0
Rubella	33	5	1	3	0
Dysentery	1	2	0	1	0

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Parachutist

PARACHUTIST

Jimmy Horning

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Landing from an airplane does not injure my stump or artificial limb.

•

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Orthopedic and standard shoes built flexible, resilient or rigid (not the same type for everybody) are featured and fitted by Irvin Heidenreich. Also persons sent in for good, comfortable shoes in regular or odd sizes are fitted at reasonable prices.

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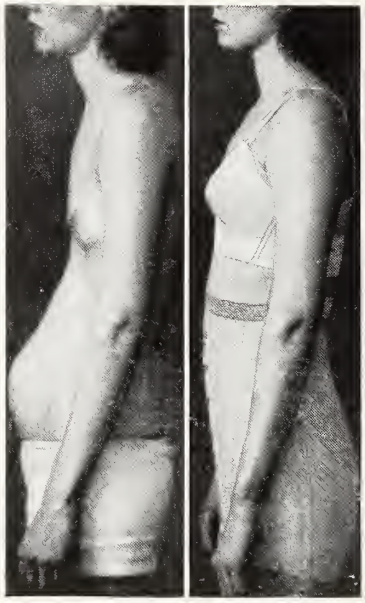
Patients with Long-Standing Ptosis



A B

Are Grateful For Relief Obtained By Individually Designed SPENCER SUPPORT

A: *Patient with extreme case of enteroptosis. Probably has movable kidney, also.*

B: *Same patient in the Spencer that was designed especially for her. Note support given — and improvement in posture.*

A large number of doctors have remarked the immediate favorable reaction of patients with long-standing ptosis to a Spencer Support. This is because the Spencer has been designed especially for patient *after* a study of patient's posture habits has been made. Thus our designers are enabled to create a support that will improve posture.

A Spencer Support gently lifts sagging organs, while allowing freedom at upper abdomen. This, plus posture improvement, aids digestion, elimination and improves circulation of blood through abdomen. Appetite usually improves. The patient's improved posture induces better breathing, a feeling of well-being and a happier outlook.

Every Spencer is individually designed for patient, of non-elastic material. Hence, the support it provides is constant, and the Spencer can be—and IS—guaranteed NEVER to lose its shape. (Spencers have never been made to *stretch to fit;* they have always been *designed to fit.*) Why prescribe a support that soon loses its shape and becomes useless before worn out? Spencers are light, flexible, durable, easily laundered.

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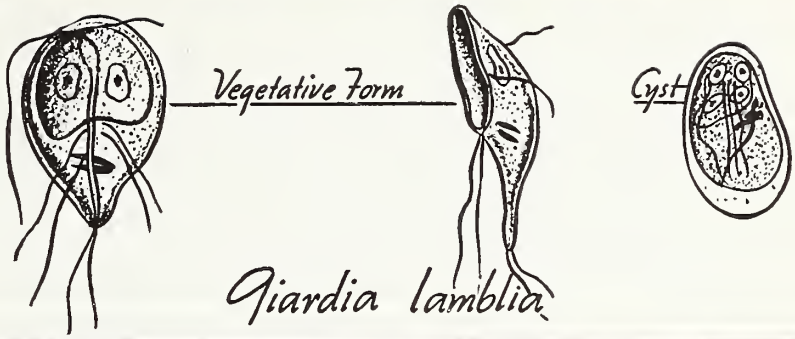

GIARDIASIS

. . . Although evidence for the pathogenic nature of Giardia lamblia is not conclusive, this microorganism may possibly be the cause of diarrhea, abdominal pain and other symptoms of the clinical picture commonly referred to as giardiasis.

It has recently been demonstrated that Giardia lamblia can be eradicated from the intestinal tract with remarkable promptness by the administration of Atabrine Dihydrochloride.

The usual dose of Atabrine Dihydrochloride is 0.1 Gm. three times daily for five days.

Write for booklet: "Therapy of Giardiasis"

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COUNTY MEDICAL SOCIETY DIRECTORY

COUNTY	SECRETARY	TIME OF MEETING
Adams	Myron L. Habegger, Berne	Last Tuesday of each month.
Allen (Ft. Wayne)	Harry C. Harvey, Fort Wayne	1st, 3rd and 4th Tuesdays except June, July and August.
Bartholomew	Marvin Davis, Columbus	Last Wednesday evening of each month.
Benton	V. L. Turley, Fowler	Second Wednesday of each month.
Boone	John R. Porter, Lebanon	First Tuesday of each month.
Carroll	Charles Wise, Camden	Second Thursday of each month except June, July, August.
Cass	Marian Hochhalter, Logansport	Third Friday of each month, except June, July, August.
Clark	E. P. Buckley, Jeffersonville	First Wednesday evening of each month.
Clay	Robert K. Webster, Brazil	Second Tuesday of each month.
Clinton	A. G. Chittick, Frankfort	First Tuesday night of each month.
Crawford	G. B. Hammond, English	.....
Daviess-Martin	C. P. Fox, Washington	Fourth Tuesday of each month.
Dearborn-Ohio	J. C. Elliott, Guilford	Last Thursday of each month except July, August.
Decatur	B. L. Mahuron, Greensburg	Third Wednesday evening of each month.
DeKalb	C. B. Hathaway, Butler	Every third month.
Delaware-Blackford	W. C. Moore, Muncie	Third Tuesday of each month.
Dubois	P. J. Blessinger, Jasper	Quarterly.
Elkhart	O. E. Wilson, Elkhart	First Thursday of each month except June, July, August.
Fayette-Franklin	R. H. Elliott, Connersville	Second Tuesday of each month.
Floyd	G. Irene Polhemus, New Albany	Second Friday of each month.
Fountain-Warren	A. R. Kerr, Attica	Variable.
Fulton	A. E. Stinson, Rochester	First Friday of each month.
Gibson	Orville M. Graves, Princeton	Second Monday evening of each month.
Grant	R. W. Lavengood, Marion	Fourth Thursday of each month.
Greene	George Moses, Worthington	First Thursday following second Monday of each month.
Hamilton	A. F. Connoy, Westfield	Second Tuesday each month except July, August, Sept.
Hancock	Joseph L. Allen, Greenfield	Second Wednesday of each month.
Harrison	W. E. Amy, Corydon	.....
Hendricks	W. T. Lawson, Danville	Dates of meetings variable.
Henry	W. U. Kennedy, New Castle	Third Thursday of each month.
Howard	Ralph E. McIndoo, Kokomo	First Friday of each month.
Huntington	G. M. Nie, Huntington	First Tuesday of each month.
Jackson	Geo. H. Kamman, Seymour	First Thursday of each month at 8 p. m.
Jasper-Newton	W. G. Pippenger, Brook	Second Friday every second month.
Jay	B. M. Taylor, Portland	First Friday of each month.
Jefferson	O. A. Turner, Madison	Fourth Monday of each month.
Jennings	D. L. McAuliffe, North Vernon	Last Wednesday of each month.
Johnson	John H. Machledt, Whiteland	First Tuesday of each month.
Knox	C. L. Boyd, Vincennes	Third Tuesday of each month.
Kosciusko	H. F. Steele, Claypool	Second Tuesday of each month.
LaGrange	Alfred Wade, Howe	Last Thursday of each month.
Lake	Harry Brandman, Whiting	Second Thursday of each month.
	Exec. Sec.; Mr. Rollen Waterson,	504 Broadway, Gary.
LaPorte	Louis Moosey, Union Mills	Third Thursday of each month except July and August.
Lawrence	Morrell Simpson, Bedford	First Wednesday of each month except July and August.
Madison	M. A. Austin, Anderson	Third Monday of each month except June, July, August.
Marion (Indianapolis)	Wm. M. Dugan, Indianapolis	Every Tuesday evening.
Marshall	L. W. Vore, Plymouth	First Wednesday noon each month except July, August.
Miami	E. L. Burrous, Peru	Last Friday of each month.
Monroe	H. S. Hepner, Bloomington	Last Wednesday of each month.
Montgomery	W. M. Taylor, Crawfordsville	Third Thursday of each month.
Morgan	K. L. Dickens, Martinsville	Third Wednesday evening of each month.
Noble	W. F. Carver, Albion	First Tuesday after first Monday, Mar., June, Sept., Dec.
Orange	C. E. Boyd, West Baden Springs	Second Tuesday every other month.
Owen	Julia S. Thom, Spencer	Third Friday of each month.
Parke-Vermillion	A. E. Sabin, Dana	Third Wednesday of each month.
Perry	Earl R. Snyder, Troy	Tuesday before last Thursday of each month.
Pike	L. R. Miller, Winslow	Second Tuesday of each month.
Porter	John R. Frank, Valparaiso	Last Tuesday of each month, 8 p. m.
Posey	W. E. Jenkinson, Mt. Vernon	Second Tuesday each month, except June, July, August.
Pulaski	T. E. Carneal, Winamac	Last Tuesday night of each month.
Putnam	L. F. Gwaltney, Roachdale	Second Thursday of each month.
Randolph	Ivan E. Brenner, Winchester	Second Monday night of each month.
Ripley	Wm. C. McConnell, Sunman	First Wednesday of each month.
Rush	W. H. Nutter, Rushville	Second Thursday night of each month.
St. Joseph	G. M. Rosenheimer, South Bend	1st and 4th Tuesdays and 3rd Wednesday, Sept.-June.
Scott	J. P. Wilson, Scottsburg	Third Tuesday of each month.
Shelby	J. A. Davis, Flat Rock	First Wednesday evening of each month.
Spencer	John H. Barrow, Dale	Variable.
Starke	J. F. DeNaut, Knox	Variable.
Steuben	W. H. Lane, Angola	Last Friday of each month.
Sullivan	J. S. Brown, Carlisle	First Wednesday of each month except June, July, August.
Switzerland	R. M. Copeland, Vevay	No meetings.
Tippecanoe	J. C. Burkle, Lafayette	Second Tuesday evening of each month except July, August.
Tipton	W. F. Tranter, Sharpsville	First Monday of each month.
Vanderburg	S. L. Bryan, Evansville	Second Tuesday of each month.
Vigo	A. M. Mitchell, Terre Haute	Second Tuesday each month except June, July, August.
Wabash	O. G. Brubaker, N. Manchester	First Wednesday of each month except July and August.
Warrick	J. T. Samples, Boonville	Second Tuesday of each month.
Washington	Claude B. Paynter, Salem	First Wednesday of each month.
Wayne-Union	Gladys Hill-Harmon, Richmond	Second Thursday of each month.
Wells	H. Brooks Smith, Bluffton	Third Monday of each month.
White	H. B. Gable, Monticello	Last Friday of each month.
Whitley	Park Huffman, South Whitley	Second Tuesday of each month.

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The fat of Similac has a physical and chemical composition that permits a fat retention comparable to that of breast milk fat (Holt, Tidwell & Kirk, Acta Pediatrica, Vol. XVI, 1933) . . . In Similac the proteins are rendered soluble to a point approximating the soluble proteins in human milk . . . Similac, like breast milk, has a consistently ZERO curd tension . . . The salt balance of Similac is strikingly like that of human milk (C. W. Martin, M. D., New York State Journal of Medicine, Sept. 1, 1932). *No other substitute resembles breast milk in all of these respects.*

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THE INDIANA STATE MEDICAL ASSOCIATION

Ninety-Fourth Annual Session—Indianapolis—Sept. 28, 29 and 30, 1943

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For One Year (term expires Dec. 31, 1943): Don F. Cameron, M.D., Fort Wayne; F. S. Crockett, M.D., Lafayette. Alternates: Norman M. Beatty, M.D., Indianapolis; A. M. Mitchell, M.D., Terre Haute.

For Two Years (term expires Dec. 31, 1944): H. G. Hamer, M.D., Indianapolis; George Dillinger, M.D., French Lick. Alternates: J. E. Ferrell, M.D., Fortville; A. S. Giordano, M.D., South Bend.

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District	*Councilor*	*Term Expires*
1	I. C. Barclay, Evansville	Dec. 31, 1944
2	H. C. Wadsworth, Washington	Dec. 31, 1945
3	W. H. Garner, New Albany	Dec. 31, 1943
4	J. C. Elliott, Guilford	Dec. 31, 1944
5	A. M. Mitchell, Terre Haute	Dec. 31, 1945
6	Samuel Kennedy, Shelbyville	Dec. 31, 1943
7	C. J. Clark, Indianapolis	Dec. 31, 1944
8	E. H. Clauser, Muncie (acting)	Dec. 31, 1945
9	F. T. Romberger, Lafayette (Chairman)	Dec. 31, 1943
10	N. K. Forster, Hammond	Dec. 31, 1944
11	Ira Perry, North Manchester	Dec. 31, 1945
12	H. L. Murdock, Fort Wayne	Dec. 31, 1943
13	Alfred Ellison, South Bend	Dec. 31, 1944

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District	*President*	*Secretary*	*Date and Place of Next Meeting*
1	W. D. Stover, Boonville	Harmon Stanton, Evansville	
2	K. L. Hull, Bloomfield	J. S. Brown, Carlisle	
3			
4	Charles Overpeck, Greensburg	P. C. Bentle, Greensburg	Greensburg, May 19, 1943
5			
6	F. E. Hagie, Richmond	J. E. Ferrell, Fortville	Shelbyville, May 20, 1943
7	Robert H. Egbert, Martinsville	L. H. Kornafel, Indianapolis	Martinsville
8	C. A. Ball, Muncie	L. R. Mason, Muncie	Muncie
9	Earl Van Reed, Lafayette	John C. Burkle, Lafayette	Lafayette, May 20, 1943
10	A. W. Rhind, Hammond	S. H. Skrentny, Hammond	Hammond
11	L. E. Jewett, Wabash	O. G. Brubaker, North Manchester	
12	Ben Pence, Columbia City	S. R. Mercer, Fort Wayne	
13			

INFORMATION FOR CONTRIBUTORS TO THE JOURNAL

All articles must be typewritten, double-spaced, on one side of white paper, with margins of at least one inch.

Photographs should be printed on glossy paper. Negatives are not acceptable.

Illustrations are limited to two for each original article. If more than two are accepted for publication, the cost of extra illustrations must be borne by the author.

Contributors are responsible for all statements made in their articles. The editor and editorial board members may not be in agreement with various views expressed by authors, but it is desired to allow authors as great latitude as possible. However, the right is reserved to reduce in length or reject any article.

Individuals are limited to one original article in each volume of THE JOURNAL.

Articles are accepted for publication only on the understanding that they are submitted for exclusive publication in THE JOURNAL of the Indiana State Medical Association. All communications regarding advertising and subscriptions should be sent to THE JOURNAL, 1021 Hume Mansur Building, Indianapolis. Communications dealing with editorial matters should be sent to E. M. Shanklin, M.D., Editor, 5141 Hohman Avenue, Hammond, Indiana.

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COMMITTEE ON NECROLOGY—Chairman, James B. Maple, Sullivan; W. D. Inlow, Shelbyville; C. N. Combs, Terre Haute.

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EFFECTIVE WAR PARTICIPATION*

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PITTSBURGH, PENNSYLVANIA

The history of the formation of the Committee on War Participation of the American Medical Association, its functions, and a form for their application by similar committees, if and when authorized and appointed by state medical associations, in response to the earlier request from the American Medical Association Committee follows:

"The Committee on Medical Preparedness was appointed to accomplish a specific requested purpose," according to the report of the 1941-42 Committee on Medical Preparedness to the 1942 House of Delegates of the American Medical Association. "Since the national preparedness program has now been superseded by actual participation in war, the Committee on Medical Preparedness recommends to the House of Delegates the appointment of a committee, for the duration of the war, to be known as the 'Committee on Participation of the Medical Profession in the War Effort,' to be composed of five members appointed by the Speaker of the House, with the President, President-Elect, Chairman of the Board of Trustees, Secretary of the Association and the Editor of THE JOURNAL as ex-officio members.

"The proposed Committee on Participation of the Medical Profession in the War Effort, in keeping in close touch with all policies affecting the quality and efficiency of medical service both to the armed forces and to the civilian population, would feel free to express comment and criticism of policies relating to the participation of medicine in the war effort. Without authority to act, it could advise, expressing the view of the medical profession on such proposals as are made, having a direct bearing on the principles which our Association regards as fundamental in providing good medical service.

"The Reference Committee on Military Preparedness to the 1942 House of Delegates of the American Medical Association recommended adoption of the above with this comment and alteration: 'Your reference committee felt, however, that, for purposes of brevity, some further consideration should be given to the proposed title of this committee. It submits for consideration as an alternative the name of War Participation Committee of the American Medical Association.' "

The accomplishments of the Committee on Medical Preparedness of the American Medical Association from June, 1940, to June, 1942, under the chairmanship of former President Irvin Abell, will throughout the years reflect great credit on the entire association as an outstanding voluntary contribution by the organized medical profession to the winning of World War II.

Paced by Dr. Abell's committee, the forty-eight constituent state medical associations served equally well their country's war needs through the instrumentality of similar committees.

Late in the year of 1941 medical war activities in the forty-eight states of the Union were succeeded by the now familiar task of Procurement and Assignment Service, contributed usually by the same personnel which earlier served as Medical Preparedness.

Great as have been their previous accomplishments, 1943 with its needs for 10,000 more doctors of medicine to serve with the nation's additional armed forces increases the heavy responsibilities of the Procurement and Assignment Service as we have known them, since they now become more complex, with doubled accent on the accessibility of adequate medical service to war industries, to thinly populated districts, and to essential institutions. The Federal Manpower Commission has leaned on the Procurement and Assignment Serv-

* Presented before the Secretaries' Conference of the Indiana State Medical Association at Indianapolis, on January 24, 1943.

† Chairman of the War Participation Committee, American Medical Association, and Secretary of the Medical Society of the State of Pennsylvania.

ice, under the chairmanship of the former President Frank H. Lahey, of the American Medical Association, and twice Dr. Lahey has turned to the War Participation Committee of the American Medical Association for support. Similary, State Procurement and Assignment Service may turn to the State War Participation Committee, and doubtless the response will be prompt and understanding.

SUGGESTED DUTIES OF THE WAR PARTICIPATION COMMITTEE OF A CONSTITUENT STATE MEDICAL ASSOCIATION

The functions of this committee, prescribed by the 1942 House of Delegates of the American Medical Association in June, 1942, and applied to constituent associations might well be expressed in three paragraphs as follows:

> "The proposed Committee on War Participation should keep in close touch with all policies affecting the quality and efficiency of medical service both to the armed forces and to the civilian population.
>
> "It should feel free to express comments and criticism of policies relating to the participation of the medical profession in the war effort.
>
> "Without authority to act, only to advise, it becomes a committee to express the views of the medical profession on such proposals as are made that may have a direct bearing on the principles which the American Medical Association regards as fundamental in the provision of good medical care."

Obviously, these committees may serve well at times by asking pertinent questions of those in authority who may seek disposal of precious medical service, and at all times will encourage and support to the fullest wise proposals to sustain the highest possible "quality and efficiency of medical service both to the armed forces and to the civilian population."

At all times the advice has been given that the personnel of the War Participation Committee might advantageously be that of a former or existing committee on medical preparedness.

It is firmly believed by those who have given careful study to the functions of a War Participation Committee that there should be no occasion for confusion between its important but simple responsibilities and the more definite duties of Procurement and Assignment Service, or any of the latter's advisory personnel in any state.

A CHALLENGE

No less a student of and authority on the existing and prospective wartime needs for medical service in the United States than the former Governor of Indiana and the present chairman of the Federal Manpower Commission, Paul V. McNutt, publicly declared in June, 1942 (at Atlantic City), and in November (at Pittsburgh) that the war industry workers of this country are not being sufficiently safeguarded and may not be treated adequately by the medical profession of 1942. Commissioner McNutt, giving full credit to the endeavors of the American Medical Association through its Council on Industrial Health and a Sub-committee on Industrial Health of Procurement and Assignment Service to correct the situation, has further emphasized it by stating that "The need is far and beyond that of industry supplying medical service for compensable injuries"; and further proclaiming that "Industrial medical departments should draw upon local physicians wherever possible, that preventive services" (Industrial Health and Hygiene) "should be provided, and compensable illness treated when possible on the job" to minimize absenteeism.

Do what they may, the leaders in your county medical society and mine, your state medical society and mine, or in our own American Medical Association will prove powerless to effectively influence the profession's place in public esteem during and after this war unless each individual practitioner so responds from within himself to the people's call for service that it will never become possible for government bureaucrats to push us around.

Asking pertinent questions will not interfere with the winning of the war, especially under government, through special privilege.

THE ANSWER

Don't wait until the war is over to prove how well American Medicine is qualified to best render adequate medical service to a war-weary nation, likely to be in the mood to accept the quack sociologic remedies emanating from selfish pressure groups or bureaus controlling elected persons quite likely to be interested overwhelmingly in political patronage and return by ballot to public office.

How comforting it would be to feel that you are all going back home determined that every member of the Indiana State Medical Association will prepare to put such quality into his individual service that nobody can truthfully make the charge that good preventive, corrective and ameliorative medical services are not generally locally available. This may mean more instruction or training in the newer industrial health subjects. You may need to organize new or to activate old committees to be cooperative always with every other organization in your county that expresses interest in health. If they turn to you, as they should, don't cast them aside saying, "We have no plans or committees for helping you." Meet them all with open arms. Also keep your public health legislative committees alert to the health legislation that is introduced in Indiana and in Congress in 1943.

With these private and public obligations met, there will be no apologies to make when your fellow members now in military service come back home. They will find that you on the home front have defended their interests and the health interests of the people of Indiana so splendidly that each will return to a private professional career closely resembling that which he left behind in your keeping, that is, free from "regimentation of his skills, his initiative, and of his constructive effort." Furthermore, there can be no more effective form of war participation.

INDUSTRIAL HEALTH AND THE WAR *

C. M. PETERSON, M.D.†
CHICAGO, ILLINOIS

Reduced to its simplest terms, the relationship of medicine to war industry can be expressed as follows:

1. No country engaged in modern warfare can tolerate impaired industrial production from preventable illness or accidents.
2. Sufficient technical knowledge and equipment exists to make nearly every job safe, healthful and more productive.

The conclusion inevitably follows that we, as doctors, engineers, nurses, technicians and others must attempt to apply this information as widely as possible. Leadership in industry, in government and in medicine has accepted this set of facts as correct, and under the stimulus of the War Participation Committee of the American Medical Association steps are being taken to meet the problem.

ESSENTIALS

However, as experience accumulates, it becomes clear that our ability as professional people to carry into full effect our willingness to serve in the field of industrial health rests on a number of interrelated factors. In the first place, what is it we are attempting to do? The Council on Industrial Health has persistently sought to clarify the objectives of industrial health service. According to the most recent interpretation the essentials of industrial health service are:

1. A competent physician who takes genuine interest in applying the principles of preventive medicine and hygiene to employed groups and who is willing to devote regular hours to such service in the working environment.
2. Industrial nurses with proper preparation, acting under the physician's immediate supervision or under standing orders developed by him or by the committee on industrial health of the county medical society.
3. Industrial hygiene service directed at improvement of working environment and control of all unhealthful exposures, to be provided by physicians and others with guidance and assistance from the specialized personnel in state and local bureaus of industrial hygiene.
4. A health program which should include:
   (a) Prompt and dependable first aid, emergency and subsequent medical and surgical care for all industrially induced disability.
   (b) Health conservation of employes through physical supervision and health education.
   (c) Close correlation with family physicians and other community health agencies for early and proper management of nonoccupational sickness and injury.
   (d) Good records of all causes of absence from work as a guide to the establishment of preventive measures.

These standards, if they can be regarded as such, seem likely to point the way to more and better health conservation among the working population.

CREATION OF DEMAND

But, no matter how willing medicine may be to apply dependable knowledge to industrial situations, it cannot do so unless there is much more widespread acceptance by industry of the health and economic benefits procurable under adequate programs of occupational hygiene. It seems evident, of course, that although the medical profession can take much initiative in this kind of promotional activity, the real obligation ought to rest fundamentally upon industry itself. As a matter of actual fact, this responsibility is being recognized more and more, in consequence of which we can expect shortly to see the effects of influential interest expressed by national and local manufacturing and commercial groups. Another potent influence is the government, more particularly the War Production Board, which has a clear recognition of the importance of industrial health and is attempting to do something about it through the organization of labor-management committees in all war industries. Safety and health should be and, in fact, are very real concerns of these committees.

Labor in other ways is beginning to manifest greater interest in the physical welfare of its membership. Certainly employes need to take greater personal responsibility for their own health status, and would do so if they knew how. Health education then becomes a factor of considerable prominence in our medical program, not only to support preventive services set up in the plant, but also in respect to nonoccupational health hazards. At least medicine cannot be blamed for thinking that wherever industrial health service is well done the interests of employer and employe run very close together.

INDUSTRIAL MEDICAL EDUCATION

A third and most important element in a successful campaign to reduce absenteeism and to advance industrial health standards is improved medical education. Better training is desirable both before and after graduation, and much improvement is occurring in this direction.

The so-called "Indiana Plan of Postgraduate Industrial Medical Education," just now about to be inaugurated, is being observed with more than ordi-

* Presented at the Secretaries' Conference of the Indiana State Medical Association, Indianapolis, January 24, 1943.

† Secretary, Council on Industrial Health, American Medical Association.

nary interest. It rests on several requisite considerations:

1. It uses available state facilities—the medical school, the bureau of industrial hygiene, and well-conducted plant medical departments.
2. It presupposes that there are medical volunteers willing to serve full time in industry as a contribution to the war effort.
3. It recognizes that most industrial health is actually performed by private practice, and it provides a means for acquainting the profession at large with basic data on industrial health.

If these general arrangements work out in Indiana as a test area, many other localities will be urged to operate along similar lines.

BETTER LOCAL ORGANIZATION

Finally, the Council on Industrial Health is convinced that no plan is likely to achieve much success unless it is administered locally in keeping with local methods of medical practice and public health administration. To this end, the establishment of cooperating committees on industrial health, now largely completed in the states, is being pushed down into industrial counties. Full details of how these county committees might operate have recently been published in *The Journal of the American Medical Association.*[1] In a word, they will be expected to undertake any assignment which requires the exercise of medical initiative and leadership. It is easy to foresee the many opportunities for education, both in the profession and out of it. Specific instructions will have to be sent to these committees from time to time, and machinery is already available through bulletins, journals, correspondence and field activity.

SUMMARY

In these and other ways medicine is attempting to meet new opportunities and responsibilities. The plan of action proposed here rests fundamentally upon willingness of physicians in all kinds of practice to accept industrial health service as a personal contribution to the war effort. If we do our work well, I am confident that industry will not be content to regard this endeavor as a temporary urgent expedient, but representative of great new horizons still virtually unexplored.

1 Council on Industrial Health of the American Medical Association: Medical Service in Industry—An Industrial Health Program for a County Medical Society, *J.A.M.A.* **121**:259 (Jan. 23), 1943.

ABSTRACTS

ABSTRACT OF MEDICAL ARTICLES BEING SENT DOCTORS IN SERVICE

Two projects that are aiding physicians in the armed forces not only to maintain professional competence in matters pertaining to military medicine but also to return to civilian practice at the end of the war armed with the latest knowledge in all fields of medicine, are announced in *The Journal of the American Medical Association* for January 23.

The Journal says that: "By cooperation of the editorial staff of *The Journal of the American Medical Association* with the Committee on Information of the Division of Medical Sciences of the National Research Council and the Division of Publications of the United States Army and Navy Medical Departments and the United States Public Health Service, a letter is being prepared every two weeks, which is distributed to every officer in these services. Such letters are sent by air mail or by V-letter to various camps and hospitals and are there mimeographed for distribution to the individual officers. In some instances copy is sent directly to an individual officer. The letters consist of from four to six pages of brief abstracts of articles of significance appearing in the current medical literature.

"By special arrangement also a pharmaceutical company has planned to distribute to officers in the armed forces a publication called *Medical Journal Abstracts*, prepared by the library staff of this company. Copies of this periodical are sent to each station, camp, hospital or post in care of the chief medical officer or the chief surgical officer and then distributed by him to the medical officers in his group. The company offers to send *Medical Journal Abstracts* on receipt of a correct APO address also to medical officers overseas, subject, of course, to decisions of governmental authorities in charge of postal regulations.

"Certainly these attempts to aid physicians in the armed forces to keep abreast of advances in medical science can result only in improvement in medical service to the men for whose health and medical care they are responsible."

FINDS TYROTHRICIN BENEFICIAL IN TREATING LOCAL INFECTIONS

Tyrothricin, a bactericidal substance recently isolated from a soil bacterium, applied to ulcers resulted in sterilization and healing if the local infection was caused by Streptococcus haemolyticus, Staphylococcus aureus or Streptococcus faecalis and encouraging results were obtained when it was applied to mastoid cavities following mastoid operations, Charles H. Rammelkamp, M.D., Boston, reports in the current issue of *War Medicine*. The latter is published bimonthly by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council.

Dr. Rammelkamp's findings are based on the use of the substance in the treatment of fifty-eight localized infections, most of them located on the arms or legs of patients, and its application at the time of operation to fifteen mastoid cavities infected with hemolytic streptococci.

"Early in the present studies," Dr. Rammelkamp says, "it was noted that in an infection associated with a mixed flora, that is, both with gram-negative and with gram-positive organisms, it was impossible to rid a lesion of the gram-positive component, even though large amounts of the bactericidal substance were applied. . . ."

He says that the results obtained in the mastoid group justify further trial of the substance in the treatment of mastoiditis following operation.

"The value of tyrothricin in the treatment of other forms of infection has not been established," Dr. Rammelkamp says. "Superficial streptococcic infections of wounds, burns or skin should respond to the local application of the bactericidal substance; staphylococcic infections are likely to be much more resistant. . . ."

He says that inasmuch as gramicidin, a substance obtained from tyrothricin, has been shown to be less toxic and at the same time more potent against gram-positive organisms, "it appears likely that this substance may prove more useful in the treatment of certain localized infections."

ARMY AIR CORPS' NEW CONVALESCENT PROGRAM*

HOWARD A. RUSK, M.D.†
JEFFERSON BARRACKS, MISSOURI

It is a privilege to have the opportunity of addressing this assembly on the medical care extended to the personnel of the Army air forces. I should like to discuss, briefly, two phases of our program of professional care.

In the Army a man is either in the hospital or he is on full military duty. Patients in civilian life with influenza or upper respiratory infection usually have fever for two or three days at home, rest up a day or two, and then go back to their work; however, after a soldier recovers from such a respiratory infection he must, when he leaves the hospital, be prepared to go back to full military duty, with all the rigorous physical training which this involves. It is practically impossible to take a convalescent patient "fresh" from the hospital and put him back into such a rigorous regime without some sort of preliminary physical conditioning. Realizing this need, the Army air forces have adopted a plan of physical training; as soon as a man becomes convalescent he is started on graduated physical exercises, the amount of exercise to be taken designated by the medical officer in charge. A soldier may be in bed with a broken leg; however, there is no reason why he cannot take arm, neck, and thoracic exercises. He may be recovering from an upper respiratory infection; if so, the first day after the fever subsides he is started on a gradually increasing program of physical exercises to condition him for the rigorous military duty which he must assume upon discharge from the hospital.

We divide our exercise groups into first, second, and third classes. Colored tags are placed on the patient's bed by his ward officer to designate which group of exercises he is required to take. These are changed from day to day as the physical condition of the patient permits, so that immediately before discharge the man is taking a full regime of calisthenics.

We have noted in the station hospital at Jefferson Barracks, Missouri, a definite decrease in hospital readmissions following the above procedure, but the most remarkable reception has been from the soldiers themselves. They have asked time after time that they be given their exercise periods twice a day because they have not only noted an improvement in their physical well-being, but they realize full well the great advantage this physical conditioning will be to them when they return to duty.

The period of convalescence in the hospital ward has always been a boring time for soldiers, and, of course, during this period there has been a dead loss of man-hours of training. In order to combat this situation we have inaugurated a series of lectures, demonstrations, and classes, including such subjects as camouflage, gas warfare, booby traps, land mines, first aid and kindred military subjects. Trained lecturers contact patients daily on these subjects. At certain periods of the day training films are shown to larger groups of convalescents. Ju-jitsu is taught and demonstrated by one of our soldiers adept in this field. A review class in mathematics, for those men about to go to the various Army Air Corps technical schools is conducted in regular school-room fashion. A class for illiterates has been set up, and it is interesting to note that a man can learn to write his name and serial number in four days. This is not only of practical value, but it helps a man's morale tremendously. Men are making model airplanes, which are used to demonstrate certain points in airplane identification. Our daily lectures are preceded by a five-minute discussion of current events; this tends to bring the war situation up to date for the convalescent patients. A large map has been prepared in the mess hall, with indicators showing the changes in the ever-fluid battle line. When the patient is discharged from the hospital he is given a certificate showing the number of lectures he has attended, what reading or studying he has done, and this he takes back to his squadron with him to be incorporated as a part of his training record.

The response to this program has been more than gratifying; the men now feel that they are not wasting their time in the hospital. We, who are giving the courses, are stimulated by the feeling that while these boys are recovering from a cold they may learn something that may possibly save their lives later on.

This convalescent training program is now in full swing in all the Air Corps hospitals, and it is gratifying to realize the number of man-hours that have been utilized by such a teaching plan. In our own hospital, in the last twenty days, five limited service teachers have made 12,232 individual contacts and have given a total of 5,358 man-hours of instruction.

Six months ago I was a practicing physician like you gentlemen. My only hope when I entered the Army was that I could continue to practice medicine as I had been taught to practice it, and that I could serve where I was best fitted; I must say that this desire has been fully realized. Ninety-five per cent of the officers in our hospital are working at professional assignments exactly commensurate with their training.

The morale among the air force officers in the medical service is extremely high. These men appreciate being treated as professional men as

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† Chief of the Medical Service, Station Hospital, Jefferson Barracks, Missouri.

well as officers. All of us are united in a common cause, our purpose and aim being to keep more planes in the air by keeping men more fit, physically and mentally, and by utilizing every posssible teaching hour. I feel that you who are carrying the burden at home have reason to be proud of the job that is being done by your fellow physicians in the Army air forces.

THE PSYCHOLOGICAL AND SOCIOLOGICAL BACKGROUND OF THE CRIMINAL*

CHARLES R. BIRD, M.D.†
INDIANAPOLIS

Idealism and realism are the two great forces moulding human progress. In the past these forces have entered too feebly into the field of crime study. Many people today have progressive ideas, but advance is blocked by lack of proper perspective of the public, which reacts to a fixed cultural pattern. We are confronted with the need of re-education as to the viewpoint regarding the criminal.

This discussion is presented with the thought that whatever better enables you to discern motivations in crime will contribute to your effectiveness and to progress in this field. Certainly progress must go hand in hand with co-operation on your part if not through measures initiated by you. It is of necessity predicated on a knowledge and application of the basic principles of sociology and psychology. We can not afford to overlook the importance of applied phychology in everyday life. I presume that any group of young officers could be divided into three classes as to motivation:

1. Those who are enthusiastic about the work as police officers.
2. Those who would better their economic status — security.
3. Those who would in some measure give expression to a desire for superiority.

Background of the Criminal

To appreciate the importance of abnormal psychology as applied to crime, we have but to recall that 60 per cent of all complaints the doctor hears are of psychogenic origin. The stress of life saps the nervous system, the most important system in the body, and tends to bring out latent tendencies in an individual—and it is these latent tendencies that often lead to abnormal behavior.

This behavior may be in the form of crime, which is in your field, or illness, which is in the field of the doctor. There are gradations of these manifestations reaching from the straight-jacket in the insane hospital to the electric chair. In this discussion we stress the background of the criminal and refer to the field of medicine only as the two overlap.

We are told that the incidence of crime is on the increase, particularly among the youth.[1] It is well then to inquire into some of the facts and factors entering into the causation of crime. Some of these factors are general for all civilized society. The transition from the primitive and simple to the highly complex and artificial life lends stress and strain as we are confronted with the necessity of adjusting to a competitive existence.

There was a time in history when there were no laws. In order to meet his needs and perpetuate life man took food and water wherever he found them, and provided shelter and made clothing by whatever means were at hand.

Out of group living came the necessity for regulatory measures. The weak had to be protected from the strong. Property rights came into being. Sex behavior had to be regulated. This was the beginning of restraint of natural tendencies. Out of these beginnings have evolved the multiplicity of laws and the complexity of life.

In our own society there are many special contributory factors. Among these may be mentioned the capitalistic system and the machine age, which foster unemployment; the transition from rural and agricultural to urban and industrial centers where people are segregated and crowded; the conflict of cultures; conflicts from racial impacts of the melting pot resulting from migration and immigration; the breakdown in the family as a unit; women entering into competitive business; the disregard of customs, traditions, and religious teaching; the perennial conflict between age and youth; and the rearing of children by parents who attempt application of psychology with no working knowledge of its background.

We might pause to ask ourselves the questions, "What is a criminal?" and "What is crime?" A criminal is a unique person with unique roles in *his* group contacts.[1] In modern society a crime is an act forbidden by law for which an individual may be punished.

The nature of criminal or non-criminal conduct is determined by the social values which the group

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* A resumé of a course in applied psychology given as a part of the curriculum of the Indiana State Police Cadet Officers Training School at Bloomington, Indiana, June 16-July 26, 1941.

† Consulting Surgeon, Indiana State Police Department, and Chairman of the Procurement and Assignment Service for Physicians of Indiana.

[1] Elliott, Mabel A., and Merrill, Frances E.: Social Disorganization, Chap. VI, p. 128, Harper and Brothers, New York, 1934.

in political control defines as important, and which has the power to enforce its beliefs. These beliefs may be based on customs, traditions, taboos, ideas and ideals derived from the experience of the race or people. There is no fixed standard because there can be no clear line drawn between good and bad, right and wrong. The line is always shifting. In the final analysis good or bad conduct rests upon the habits, customs and beliefs of a community. While this forms the basis of judgment, it is always changing; otherwise it would mean that society is jelled or stratified and that hope of improvement is dead. That is why paths, customs and institutions are always changing, as ideas of right and wrong are changing, and why statutes are changing.[2] All of these are evolutionary changes as a rule, not revolutionary (barring the tactics of Hitler).

Witchcraft and sorcery, once punishable, no longer find a place on the statute books. A decade ago it was illegal to carry liquor in one's car. Today it is not. The unwed mother in this country is punished more severely than is the criminal behind prison bars, whereas in Germany, under the Hitler regime, she is glorified. Thus we see the influence of mores, or folkways, on the interpretation we place on things.

Criminal behavior is the natural development of successive life situations in which an individual finds social, economic or environmental adjustment impossible.

In his small social world the behavior of the criminal conforms to a pattern defined by society as "criminal," because a conflict arises between *his* sense of values and those of society.

Chemical imbalances in the body and glandular dyscrasias are definite factors in human behavior. Another factor is the consciousness on the part of the immigrant that he is more apt to be discriminated against than the native born, notwithstanding that proportionately more crimes are committed by the native born. Also proportionately more crimes are committed by negroes than by whites. Racial discrimination may be a factor in negro crime rate.[1] In addition, it is traditional in the South to wink at the petty thieving of the negro. When the negro population migrates to the North, faced with poverty, the propensity for petty thieving is amplified into the category of major crime.

Further factors in the cause of crime are accumulated grudges and disappointments; unwillingness to accept inferior roles; the belief that one is entitled to a fair share of the world's goods; jealousy; a sense of social inadequacy; and a desire for personal revenge. The place of residence itself is a factor, since about 75 per cent of crime is committed in urban communities, and 90 per cent of this is in localized areas.

Each criminal is possessed of certain qualities and endowments, and as a member of the social group a multiplicity of influences play upon his personality. Home training, companions, and all the socio-economic influences in *his* world enter into the formation of *his* life organization and *his* fundamental attitudes. Except for the unwitting or accidental crime, every offender is one whose behavior is a direct expression of his anti-social attitudes. Either because of defective personal qualities or defects in educational background, he has failed to recognize the rights and welfare of the larger social group.

An incentive to crime presents itself to the poor and underprivileged individual when he is asked to subscribe to one social standard in contrast to the ethics and standards of the wealthy man whose prestige and honor save him from the arms of the law, whereas the same conduct on the part of the poor man would be charged as criminal. Most men who are criminals are highly suggestible and are unable to withstand temptation, and they lack resourcefulness to solve their problems along socially-acceptable lines.[1] Crime can not be solved on the basis of a single cause; we must take into consideration the diverse and varied motivation in human conduct.

A crime is committed; the criminal is sentenced; and after sentence he returns home usually worse off than before, with a grudge against society and the community which offer no sympathetic consideration toward his condition and his needs. He is branded as a criminal and is ostracized socially and industrially. Too often he can earn a livelihood by no other means than again resorting to crime. He feels that he has not had a square deal, and usually he hasn't. He is severely handicapped in the race of life, which often is tough enough at best without a handicap.

In prison he learned from excellent teachers that the ex-convict will never get a break on the outside. There he learned that police are crooked and unfair, and that they will hound him every time a crime is committed with which he might in some remote way be connected. He learned that politicians and public officials are all crooked and are influenced by money or by pull. He was also informed that on the outside there are hundreds of little rackets to pursue — easy money to be made. He recalls the kindness and consideration of the new friends he made in prison during lonely hours under miserable conditions. Their bitterness was contagious and seeped into his being, replacing any morality of his earlier teaching and causing him to accept ideas that might otherwise have been discarded. The chances are that his only associates on the outside are ex-convicts, and thus his criminal education proceeds without so much as an inquiry being made as to his present needs or the cause of his anti-social conduct.[3] The attitude is to assume toward the criminal that the responsi-

[2] Darrow, Clarence Seward: Crime—Its Cause and Treatment, Chap. I, Thomas T. Crowell Company, New York, 1922.

[3] Riemer, Hans: My Prison Experiences, Manuscript prepared in 1937, Indiana University Bookstore, Bloomington, Indiana.

bility is a practical question, the answer to which is to be supplied by society without regard to the psychiatric, social, economic or biological factors involved. The attitude of which society is guilty is to assume that he can never atone to the point of responsibility and position.

Among the causes of crime we might list incipient organic disease; mental retardation; reaction to intolerable environment; nutritional and economic causes; lack of outlet; fatigue; and intoxicants.[4]

There are several related factors which account for the increase in the number of offenses by children under ten and by juveniles under twenty. Among these is the perennial conflict between age and youth,—conservatism and willingness to abide by the opinion of the elders being best achieved by the elders themselves.[1] Youth is the age of daring—the age of recklessness. Unhampered and unrestrained by family tasks and obligations, those boys who have not been trained to a social point of view are lured by the risk and adventure of the criminal's life. The dare-deviltry which characterizes the youthful offender is the same daring that prompts him to enlist in the Army or Navy. Someone has said that men are criminals because they have never grown up—they have never reached intellectual or emotional maturity.

Other complicating factors are broken homes, unintelligent and unsympathetic homes, poverty, trouble in school, unfortunate companions, mental dullness and, above all, emotional instability. We emphasize emotional instability, for it may be that a boy has a good home economically speaking, and a promising vocational adjustment, but is constantly confronted by other factors that are intolerable, such as conflict between parents, resulting in maladjustment and emotional instability. Parents may be intelligent in a general way but ill-informed as to the needs for a suitable outlet for the boy, and this lack of understanding leads to blocking and desperation.

Delinquency is incident to a restless and maladjusted society. This is well illustrated by the fact that in Yokohama there has been an increase in crime of 400 per cent in the four years Japan has been at war,[4] and that in London the increase has been proportionately as great since England has been at war.

A stage has been reached where the education of a child proceeds along stereotyped lines without correlated vocational and social guidance, and without regard for his needs. Intensification of education and modern stress may be very material factors in disturbance of behavior. Movies, automobiles and loose discipline lead to loss of sleep; late hours to fatigue, and in the face of these conditions the child is hounded into an attempt to make good grades. He rushes to the nearest lunch counter and gets a sandwich and a coke at noon, regardless of nutritional needs. These things contribute to defects, obstinacy and personality and habit disorders.

Many chapters have been written on juvenile delinquency, so often the origin of the future criminal. The child who has been forced to live under bad housing conditions (entailing dark rooms, poor ventilation, crowded quarters, perhaps infested with vermin), and subsists on poor food gets off to a bad start in life. In order to satisfy his ego and maintain a feeling of self-worth, he is often led to commit pranks whereby he is attempting to draw attention to himself. Instead of being understood, his conduct is met with disapproval and attempted blocking. This tends to lead to further misconduct—and eventually to crime.

Physical characteristics and defects affect conduct and often induce disgust for training and education. Deformity may mark an individual off from his fellows and destroy the incentive to conform to the cultural social pattern.[4]

The only child, the lonely child, is an outstanding example of isolation and subsequent disturbance. The pampered, spoiled, neglected, or invalid child more readily tends to become anti-social. He fails by auto-suggestion to identify himself with a successful role and a normal pattern. He tends to become the subject of emotional upheavals, often little short of psychic revolution. Accepted attitudes and reactions are likely to be challenged by such children. Any one of these factors, or a combination of several, may result in anti-social habit patterns which begin in minor behavior problems of handicapped boys who end up behind prison bars, largely because no inquiry was made into the boys' attitudes and motivations, so essential to an understanding of behavior.

There is a wide difference of opinion in the medical and legal definitions of responsibility. The community must be protected against the criminal, but also the individual should be protected against punitive measures when his conduct results from diseased activities of thought, feeling and volition.[5] To illustrate: A saleslady who had been with a department store for twenty years was caught stealing on three occasions at rapidly recurrent intervals. Sent to the personnel manager she defiantly demanded her discharge. When asked why, he was told that it was because she was a thief. He countered that he did not *know* that she was a thief. In her hand she exhibited a paper which proved it—it was a signed confession. Asked when she had had a medical examination, she replied, "not for twenty years." On being referred to a medical expert, it was found that she had a far-advanced incurable cancer. She was not a thief; she was ill. It would have been a crime on the part of society to convict and sentence her. Let us hope for the day when we will all learn to look

[4] Baldie, Alexander: The Treatment and Prevention of Delinquency, The Medico-Legal and Criminological Review, Vol. V, Part IV, pp. 349-377, (October) 1937.

[5] Cardwell, Mary G.: The Physical and Environmental Basis for A-Social Behavior, The Medico-Legal and Criminological Review, Vol. VIII, Part I, pp. 38-48, (January) 1940.

for the condition that culminates in the production of a criminal, and think of present-day treatment as antiquated and inadequate, as we now look back to the day when insane people were tortured and locked in dark cellars, and witches were burned at the stake.

Father Flanagan originated the slogan "There is no such thing as an inherently bad boy." By the same token, there is no such thing as a "born criminal," for the cause or causes of crime may always be sought out. Anti-social conduct and delinquency have causes, either social or personal, which often are but the symptoms of a disorder.

To illustrate: A young boy from a poor family was frequently absent from school, breaking windows, stealing, and generally incorrigible. Eventually he found his way to the state reform school. Because the boy had a high I.Q., because he had a liking for books, and because the social worker had interest enough to follow through, the superintendent took him into his private quarters and placed him in the library. At the present time this boy is an outstanding pupil in S.... High School. He lives with a married sister, away from a vicious environment and his former associates.

It is no credit to a progressive people to continue to mix vengeance with justice. Punishment is an organized "hurt" against the individual to protect the community, leaving the cause of crime unsolved. When life is harder than the punishment of man, law and order stands at the limit of its power. When people can not help themselves, nothing is gained by punishment, and deterrence is futile. But it is possible to change the beginner in crime into a law-abiding citizen by determining the reason for the crime being committed. Hiding a man behind prison walls does not tend to correct the social or psychological conditions that may have produced the crime nor arrange the behavior of the individual so that he can get along with the social order.

When personality and constitutional inadequacies cause a man to break the law, they call for investigation and treatment. The law must understand, as medicine understands, that often a person acts contrary to community regulations, or against personal freedom, safety, or morality of others, because he is the unconscious victim of vicious biological forces over which he has no conscious control. Common justice owes him an investigation, or it is not justice at all.

In the case of Hitler, as in all such cases, "Nothing can endure that is founded on injustice." Hitler, a megalomaniac, is attempting to adjust the world to himself through brutality and force, as against the principle of adjusting the individual. All during his boyhood, we are told, he was blocked and antagonized, and now he finds himself wreaking vengeance as a compensatory measure in order to give expression to superiority — he must compensate for previous assaults on his ego.

The boy previously referred to had violent tantrums during babyhood, at first called convulsions, in order to have his way—the mother usually giving in to him. As he grew older they became more violent. At the age of thirteen he would fly into a rage and attack people with a knife or other weapon. When not engaged in anti-social conduct he would withdraw from the world of reality into a world of romance, created for him by books, where he lived the imaginary roles of the fictional characters. The factors in his delinquency were: A poor home, crowded quarters, ignorant parents, bad associates, misunderstanding at school, and lack of wholesome recreational facilities. These combined factors advanced this boy well on his way to being not only a criminal but a psychopathic criminal, and he was rescued through a rational interpretation of his case.

Most of us are *potential criminals*, but we have been saved by the grace of understanding parents, school teachers, Sunday school and home environment, and a social environment consistent with and tolerable to our needs and make-up. In reality, the whole Christian philosophy is based on a sympathetic understanding and is opposed to the principle of "an eye for an eye and a tooth for a tooth." We choose to ignore this and too often continue to resort to Bible quotations to justify vengeance in the name of justice.

Frequently an act of crime is but the culmination of a long chain of cumulative forces and circumstances over which the individual has had no control. Most of us escape the misfortune of crime because the measure of our potentiality depends upon the ability to adapt ourselves to stress and adverse circumstances, and because our environment is favorable to such adjustment.

When impulses differ from those of the average individual, we class them as abnormal. If abnormal impulses lead to anti-social conduct, then the law must step in.

When an individual feels the need for relief from tensions and discomforts arising from abnormal emotions, often he is led to the association of impulses with drugs or alcohol, which help to accomplish the desired effect. Such agents tend to deteriorate and disturb mental and physical functions, to lessen inhibitions, and frequent resort to them leads to addiction.

There are different schools of thought in connection with the interpretation of psychological phenomena,[6] prominent among which are the mentalist, the behaviorist, and the interactionist. The mentalist believes in two series of events, the mental and the physical, and employs such terms as "instinct"—or as some prefer to term it "unlearned behavior"—"innate capacities" and "the unconscious." The behaviorist interprets largely in terms of the physical. The interactionist treats the individual as a whole and interprets all psychological phenomena in terms of stimuli and responses as they occur in the cultural media. Not-

[6] Kantor, J. R.: A Survey of the Science of Psychology, p. 16, Principia Press, Inc., Bloomington, Indiana.

withstanding the apparent differences, all deal with the essential facts, but interpret those facts in language that justifies a particular viewpoint. The writer's preference to interpret in the language of the mentalist makes no difference in the facts for the purpose of this discussion; that is to say, that neither the heredity of a child nor the environment into which he happens to be born can be altered by the stroke of a pen nor by the mere use of verbiage.

Passing then from the more direct primary factors entering into the background of the criminal to the consideration of the indirect causes of crime, we shall of necessity have to be somewhat academic in an attempt at a better understanding of the subject. We must have some conception of psychological phenomena and of mental dynamisms or mechanics of the mind. Because language is but the vehicle of expression, we are confronted with the necessity of understanding certain terms and certain concepts. "Concepts" are inventions of science to explain facts; "phenomena" are facts which can be observed. Sometimes there are phenomenal impossibilities, e.g., "unconscious mental process," but phenomenal impossibilities exist in other branches of science. In the world of physics we speak of frictionless, weightless ether and find justification for their use in radio. They explain in a convenient way the facts of experience and satisfy the test of utility.[7]

Let us think of the mental world, or Psyche, as consisting of three levels:[4]

1. The conscious, of which there is awareness at a given moment.

2. The foreconsciousness, that region from which material may be recalled.

3. The unconscious, which is an imaginary or hypothetical region containing material that is beyond recall, not accessible to the ordinary processes of memory or association.

The unconscious represents the historical past of the mental process. It is the cold-storage of the mind and is composed of the repressed material which results from the conflict between the primitive, instinctive, uncivilized tendencies with which we are born, and the modes of conduct prescribed by the society within which we must live and to which we must adjust. The unconscious is the vast *reservoir* of the experience of the race. Emotional tendencies are stored in it, and it furnishes a fertile soil for reaction patterns. Many forbidden desires and memories of experiences with which a sense of guilt is associated are excluded from consciousness to become a part of the unconscious. There are certain devices known as mental dynamisms by means of which psychic energy is economized or made use of. No part of mental life is ever annihilated. The unacceptable elements are relegated to the subterranean region through the process of sublimation, which means forgetting beyond the ability to recall. These devices or dynamisms serve to prevent or relieve internal conflict. Through them tension is released and reality assumes values which reflect desire.

Uncivilized man is not troubled much with conscience. On the other hand, civilization assumes a fairly complicated knowledge of what is right and what is wrong, and an inner prompting to act in accordance with it. Conscience is largely a matter of environment, temperament and education. The contributions of civilization to behavior are comparatively superficial, and even highly civilized people tend to revert to primitive forms of behavior. This reveals both the weakness of recently acquired characteristics and the strength of such fundamental desires as those of self-preservation and race propagation. Except for the promptings of conscience it is fair to assume that these two desires would dominate behavior. There is a constant striving to harmonize instinctive desires with external reality. The crude, primitive tendencies in us are subjected to the mill of education, or sublimation. Without sublimation we would remain selfish, jealous, immodest, cruel animals, unmindful of the needs or rights of others and unmindful of social standards and ethics as we know them, because there would be none. Behind the veneer of civilization there is always a tendency in us to revert to the primitive—this tendency constantly striving for expression.

When an individual sidetracks his disappointments, when he sublimates the energy of repressed material and drafts off the interest to higher and socially acceptable levels, often conflicts result. A conflict causes a whirlpool of nervous energy in the mental depths. When this disturbance reaches certain proportions it is called a "complex." A complex might be thought of as a constellation of ideas in the subterranean firmament. This constellation has an independent existence and growth, and is capable of unconscious mentation. It strives to come to the surface to motivate conduct.

Two forces operate in connection with repressed material. One strives to drive the material into the mental depths, and the other strives to keep it there. In conflict, neither set of forces being successful, the nervous energy comes to the surface in the form of symptoms of disease, or abnormal conduct, and the individual is consciously disturbed. These manifestations are symbolic of an unsatisfactory substitute and represent a compromise between these two forces in the form of distortion of the latent material through attempted conversion of the associated energy into socially approved activities. Ordinarily the striving goes on automatically, but it may be modified by conscious deliberation.

A woman may gratify her maternal desires by becoming a nurse or a teacher. To illustrate, a woman whose parents were a great care for many

[7] Jensen, Walter S.: Outline of Neuropsychiatry, Chapters I and II, Aviation School of Medicine, Randolph Field, Texas, 1937.

years found herself alone at middle age, when they died. Her social contacts were largely nil. She moved to a city where her sense of loneliness was more pronounced. Her doctor, seeing the need for an outlet, sent her back home and referred her to a strange minister to whom her problem was explained. She is now quite happy visiting shut-ins in connection with his pastoral work. She has found a satisfactory compromise substitute. She has made a successful adjustment.

No one is fully and continuously satisfied through sublimation. The preferred standards of conduct, being usually beyond human grasp, are more often the ideals toward which we strive. Individuals who deviate from accepted standards of conduct often have a limited capacity for sublimation. Various failures to achieve them are called *sin* by the church, *crime* by the law, and *personality disorder* by the doctor.

In connection with nervous disorders and abnormal behavior we frequently have occasion to refer to environmental influences and to maladjustment. Environment embraces three things:

1. Experience of the environment must be gained by actual contact.

2. This experience must be organized and brought into relation with previous experience.

3. The resultant must be transformed into appropriate action. As we develop, the vast storehouse of the unconscious or subterranean region of the mind increases in repressed material. As development proceeds, with its conflicts and repressions, life is resolved into three fundamental and controlling groups of desires:

1. Self-preservation, of which hunger is a type.

2. Race preservation, of which sex relation is a type.

3. The communal, or herd instinct, of which tribal grouping is the primitive type. The libido craving or interest is the energy driving toward these three goals; the nutritive, the sexual, and the communal. The first, nutritive, implies keeping. The second, sexual, implies giving. The third, communal, implies subordination of self for the common good of all.[7]

By environment we mean the sum total of an individual's conditionings and life experiences. All mental processes are accompanied by physiological processes in the cells and fibres of the brain. Having occurred once, such a process leaves its impress and tends to recur in the same form under similar conditions, and thus we have memory. All mental processes, conscious or unconscious, have as a super-added state, feeling and affection. The organism tends to reach out toward the pleasant and to withdraw from the unpleasant, and so we have emotions, passions, moods and temperaments. Each emotion has its passion or mood. A passion is an intense emotion of short duration. A mood is a prolonged emotion of moderate intensity. A temperament is a mood which lasts the greater part of one's life. An individual's temperament, whether sanguine, pessimistic, suspicious, or whatnot, is mainly responsible for the emotional tone aroused by any given incident. Failing to react emotionally to an experience, the emotion is repressed. This reaction not occurring leaves nervous energy active, but unconscious and ill-directed. Every one has innumerable selfish desires which he will not admit even to himself, and which he represses into the unconscious, replacing them by the opposite in the conscious.

Frequently repressed material is converted into hate for the opposite sex, and often the manifestations are those of abnormal behavior which may be extreme, which explains why insane persons so often malign and abuse the ones they loved before being overtaken by tragedy. Such extremes of abnormal manifestations may be thought of as failures to effect harmonious adjustment.

The surface manifestations in conduct and behavior are evolved from materials somewhere in the individual's mental past. Every bit of conduct is an end-product conditioned by what has gone before, and out of which it issues. Nervous disorders and abnormal behavior may be the outcome or issue of a conflict — the expression on the part of an individual of *his* type of reaction to the conditions of *his* environment.

In the funadmental principle of adjustment to environment the involuntary influence is desire. We strive to satisfy desires and wishes, and when these desires and wishes are incompatible with social ideals they must be repressed, and the energy pertaining to them diverted into useful channels — socially acceptable channels — they must be sublimated. If successful, the intrapsychic conflict has reached a favorable issue and the individual has made satisfactory adjustment because of a satisfactory substitute or a compromise substitute. If this continues, with like sublimations and adjustments, there is mental health.

In many instances the intolerable effect of an experience looms too large in consciousness, so that there is created a body of experience known as a "complex" in the conscious wishes, which overrides the repressive forces and disturbs conscious life. In this case sublimation has failed, the intrapsychic conflict causes disharmony, the individual loses precision of contact with reality, maladjustment obtains, and there is mental illness. This may range all the way from mild neurosis to insanity or behavior that is markedly anti-social.

Mental mechanisms and motives are systems of behavior with which an individual strives to adjust himself to his environment. Before we are born everything is done for us. The minute we are born we must begin to make adjustment to environment — adjustment and readjustment. In infancy our needs are few and are anticipated or immediately met; the breach between desire and attainment is nil. As we grow older and contacts with the outside world increase, the gap between desire and

attainment widens, and the necessity for compromise substitutes arises. So long as we make compromise substitutions satisfactorily, we remain normal, stable individuals; but failing, conflicts fill in the gap, maladjustment obtains with resultant abnormalities in nervous reactions and behavior. The minute instinctive behavior is obstructed, emotionalism occurs. Nervous energy is expended in proportion to activity and stresses to which an individual is subjected.

Pride of self-worth remains the most impelling force known to human ego and is a corollary of one of the fundamental laws of life — the law of self-preservation. From pride of self-worth we get incentive to cope with questions of emotionalism, and through it a new or altered perspective is created by virtue of an encouraged psychology. An emotion might be defined as a compound of sensations which arises as a result of complex movements aroused by a given situation, real or imaginary, in which we find ourselves.

Neuroses or abnormal behavior can and should be construed as a reaction to traumata incident to organized life, a defense mechanism in order to survive the conflict by compromise. Again citing the boy earlier referred to, his compromise was to withdraw into the world of romance created by books, or to find an outlet by resorting to delinquency. It is an adaptive mechanism involving a substitute in exchange for normal environmental reaction, and this substitute is in the form of disease or anti-social conduct. The situation does not of necessity resolve itself into one of the will where the reaction is deliberate, yet it is agreeable to the will that something will intervene to rescue him from the particular stress of circumstance.

Conflicts arising out of the impacts against economic, social, and traumatic stresses are what create the necessity. In this way we understand the complicated series of conditions of psychology which present themselves for solution.

A man commits murder, theft or rape; we say we would not have done it. Had we been that man in all that he represents in his physical, emotional and cultural make-up, we *would* have done as he did; we would have committed murder, theft or rape. Let us remember as we appraise human conduct that, "But for the grace of God, there goes I."

301 Hume-Mansur Building

ABSTRACTS

TANTALUM FOR REPAIRING SKULL DEFECTS

Experimental studies indicate that the metal tantalum is a satisfactory material for the repair of defects of the skull, Lieut. (j.g.) Robert H. Pudenz, Medical Corps, U. S. Naval Reserve, reports in *The Journal of the American Medical Association* for February 13.

Tantalum is an element, the seventy-third in the periodic table. It is a bluish white metal resembling steel in its physical properties and glass in its chemical characteristics. It has an atomic weight about three times that of iron.

Lieutenant Pudenz says that "It has the desirable oualities of noncorrosiveness, inertness in tissue, nonabsorbability, absence of toxic ingredients and malleability. This last quality enables the surgeon to form the flat tantalum sheet to the desired contour at the operating table. In view of these characteristics, the use of this metal should be considered in the repair of many of the cranial defects which will inevitably occur as a result of craniocerebral injury in the present war, and particularly in those repairs in which a satisfactory cosmetic result is of utmost importance."

SULFONAMIDE DRUGS REPLACING SERUM IN CEREBROSPINAL FEVER TREATMENT

The increased incidence of the one-time highly fatal disease, cerebrospinal fever, associated with war is beginning to manifest itself, *The Journal of the American Medical Association* for February 13 says in an editorial which points out that serum treatment, alone or in conjunction with the sulfonamide compounds, is being replaced with drug treatment alone, with highly effective results. The acute infectious disease also is known as meningococcic meningitis. *The Journal* says:

"The current increase in the number of cases of meningococcic meningitis in various parts of the country, which was to be expected in view of the military and industrial mobilization, has emphasized recent advances in the treatment of the disease. These improvements depend almost wholly on the use of the sulfonamide compounds. Until recently many clinicians experienced in this disease advised combined treatment with some form of antiserum and a sulfonamide compound at least for the more serious cases. . . . Accumulation of data seems now to show that drug treatment alone will bring better results than combination with such an agent as foreign serum, which, even when given intravenously, may initiate a considerable number of reactions.

"In England, for example, a statistically adequate number of patients treated with serum alone gave a fatality of 36.6 per cent as a whole. Of those under 1 year of age 67.2 per cent died, of those from 1 to 4 years 38.6 per cent and of those from 5 to 14 years 22.7 per cent. With sulfonamide compounds plus serum, of those under 1 year 32.5 per cent died, from 1 to 4 years 16.5 per cent, from 5 to 14 years 8.4 per cent, from 15 to 24 years 4.3 per cent, and from 24 to 44 years 14.1 per cent and 45 years and over 32.3 per cent, with a total fatality of 13.8 per cent. Treatment with sulfonamide compounds alone gave better rates in each age group: under 1 year 22.4 per cent, from 1 to 4 years 12.3 per cent, from 5 to 14 years 5.5 per cent, from 15 to 24 years 2.5 per cent, from 25 to 44 years 6.6 per cent and 45 years and over 28.8 per cent, with a total fatality of 9.2 per cent. Aside from the rare and practically always fatal cases of Waterhouse-Friederichsen syndrome . . . the prompt diagnosis and early vigorous treatment, preferably with sulfadiazine, will save cases which had fatal prognosis with serum therapy, and in practically all cases recovery is much more prompt.

"Other sulfonamide compounds may be used instead of sulfadiazine, including sulfathiazole, which was formerly held to be less effective because it was less uniformly excreted into the cerebrospinal fluid. . . ."

A REPORT OF EXPERIENCES WITH DEMEROL—A NEW DEPARTURE IN ANALGESIA

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Through the courtesy of Dr. John Mark Hiebert, of New York City, we are privileged to report herein the first clinical trials of demerol, recorded in a practitioner's journal. Observations from the pharmacologic angle have appeared in several numbers of *The Journal of Pharmacology and Experimental Therapeutics* during the past twelve months. Rapidly accumulating evidence suggests that this departure may open a broad new field of analgesics, designed especially for symptom relief.

The past quarter century has teemed with the development of the specific treatment of so many diseases that medical historians, in retrospect, probably may designate it by some descriptive title, such as The Golden Era of Therapeutics. But symptom relief has lagged so much that impatient patients in considerable numbers have turned to the various "pathys," who effectively have employed variations of physical therapy to relieve suffering.

A sketchy resumé of the popular analgesics during that period provides a basis for comparison. At the turn of the century the principally dispensed non-opiate pain relievers were those embodied in "headache remedies." Acetanilid, caffeine and bromide mixtures prevailed. The relatively high proportion of circulations depressed by acetanilid necessitated a safer remedy. It soon came in the ever-popular aspirin and the various salicylates. Amidopyrine, both alone and in combination with sedatives, proved even more effective. Its unfortunate bone marrow depressing factor sharply limits its safety scope.

Although veronal and other salts of barbituric acid were popular hypnotics for the purpose of producing sleep, it was not until phenobarbital became, almost overnight, the world's standard preventive of epileptic seizures that the barbiturates dominated the field. Since then it has become the partner of almost every pain alleviator, acting as a depressor of pain perception. The sodium isoamylethyl salt (sodium amytal) of barbituric acid, and various molecular rearrangements of its nucleus, provided an injectable drug whose analgesia coefficient approximated that of the opiates. Unfortunately, its hypnotic coefficient is too strong for widespread use in ambulatory cases. The cases here reported suggest that demerol may serve such a role.

The number of cases in this report is too few to warrant definite conclusions, but they strongly suggest that demerol relieves pain more effectively, safely and rapidly than any drug except morphine. It is but mildly hypnotic, practically non-habit-forming, and possesses but few contraindications and hazards. Accumulation of evidence suggests that this new departure may open a broad field of analgesics in which other substances, yet to be synthesized, will provide improvements over this first one. If so, the practitioner will be enabled to treat at his office many cases that up to now have required hospitalization.

Demerol was synthesized in Germany in 1939. The patent rights were purchased by a United States drug manufacturer just before the outbreak of World War II. Pharmacologic tests were carried out in a half dozen laboratories, with general agreement on its principal features. Dr. Hiebert allotted the drug to a number of medical schools, principally on the eastern seaboard, where countless trials were made upon patients. Tolerance and addiction phases are being investigated by the United States Public Health Service. It is thus meeting the requirements of the Food and Drug Act, while a market price is being determined by the Office of Price Administration.

For some years pharmacologists have been aware of the analgesic properties of the esters of basic alcohols. After many new substances were fashioned around that nucleus and tested for maximum analgesia and minimum toxicity, the drug finally chosen was 1-methyl-4-phenyl piperidine-4 carbonic acid ethyl ester HC1, known as "demerol".

The known physiologic methods of demerol leading to diminution of pain are two:

1. Effect upon parasympathetic endings.
2. Depressing effect upon smooth muscle fibers.

The latter is believed to dominate. While these two physiologic reactions explain the majority of pain reductions, there exist certain types of pain which respond, both by character and by timing, in a manner difficult of explanation by either principle.

One of the motives leading to the synthesis of a new type of analgesic was the long-felt need for a pain reliever that would be relatively safe for prolonged usage in non-operable carcinomata, especially where metastases brought about pain in different organs. The writer has employed it in four such cases, over a period of four months. Unquestionably, its relief in these cases is second only to morphine. Three of the cases are satisfied with demerol alone, using but slightly increased dosage. The fourth case requires morphine from time to time.

Thousands of unpublished clinical trials among the cases now being investigated in medical schools lead to its advocacy for cystoscopic work and ureteral catheterization and irrigation. It is also advocated for obstetrics and, in fact, for pain of almost any source or type. The colic pain probably responds best, but constant boring pains from faulty skeletal mechanics respond, surprisingly, almost as favorably.

This paper is, however, limited only to the actual cases treated by the writer, reporting on a small group of widely different pain types treated in the past five months.

Six cases of the general arthritic group (arthritis, myositis, or neuritis might be debatable diagnoses in all of them), all of whom had been compelled to lay off work from time to time, have now remained at work regularly for three months. They had an average of two tablets daily, by mouth, and 0.5 cc. of demerol intramuscularly about twice weekly. Salicylates were added after each had had a successful trial of three weeks on demerol alone.

Five cases of "slipped" intervertebral discs, complicated by sciatic neuralgia, were able to resume their work for about two weeks, until arrangements were made for surgical removal of the discs. They had an average of 1.5 cc. demerol injections daily (given morning and evening) while at work.

Two cases of unrelieved intense localized pain along the spine, following classical spinal fusions performed in the hope of relief, were kept sufficiently free from pain for five months to permit their regular employment. Neither was wholly freed of pain, but pain previously unbearable was diminished enough to prepare each for additional surgery.

Five patients having coronary scleroses, two of whom had experienced previous myocardial infarctions, were given 0.6 cc. of demerol, intramuscularly, a half hour prior to dental extractions and drilling. None experienced enough pain during the dentistry to constitute shock. The writer doubts the wisdom of employing demerol for angina pectoris until much more clinical investigation has been made. The drug apparently affects the vagus nerve, and might produce changes in conduction time unfavorable to the rehabilitated heart physiology.

Thoracentesis was relatively painless in three cases, without employment of local anesthesia. The same was true in seven spinal punctures. One patient, for reasons undetermined, experienced no analgesia at all.

Root pains of two cases of tabes dorsalis were greatly relieved. A truck driver who had been unable to keep a steady job during the previous year, due to unpredictable "lightning" pains, has enjoyed three months of continuous employment, by reporting for injection as soon as the pain appears. On six different occasions he has been able to return to his truck within a half hour following the injection. It will be noted that the cases herein reported employed oral administration in rather small proportion. The need for getting them back to their jobs quickly called for the rapidly effective injected drug. The side effects of the drug taken by mouth were somewhat disappointing. The atropin-like reactions of it were at times bothersome. Others complained of a jittery feeling, somewhat akin to epinephrine reactions. It is quite possible that when taken more frequently these side effects may diminish.

When not more than 1 cc. was injected daily only 20 per cent developed a tolerance that required stepped-up dosage, even after three months of fairly constant use. When larger doses were necessary, phenobarbital nullified much of the side effects.

It is very doubtful if demerol will become habit forming except in rare instances. The unpleasant side effects of the large doses that total dependence requires are automatic deterrents. Furthermore, even when demerol was substituted for morphine by a group of narcotic addicts at the United States Public Health Service Hospital of Lexington, Kentucky, it required but an average of two days to get over the desire for demerol, after four months of total dependence upon it.

SUMMARY

1. Demerol provides a new type of analgesic relatively harmless and slightly, if at all, habit forming.

2. Its low hypnotic ratio permits of ambulatory treatment and non-interrupted occupation.

3. It relieves almost every conceivable type of pain.

4. It renders minor operations safer if acute pain is regarded as a component of shock.

5. With careful management tolerance may be avoided or effectively deferred.

6. It seldom creates *desire* leading to addiction. Annoying side effects of large doses provide additional deterrents.

7. It will be available to physicians only—probably by prescription.

ABSTRACT

FIND AGE DISTRIBUTION OF PHYSICIANS IN COMMUNITY IMPORTANT IN WARTIME

Findings from a survey in Maryland and the District of Columbia on the number of patients seen in one week by physicians in private practice "serve to emphasize the need for careful consideration of the age distribution of the physicians of a community when preparing to establish the number that can be released for military service," Antonio Ciocco, Sc.D., and Isidore Altman, Bethesda, Md., declare in *The Journal of the American Medical Association* for February 13. The study was made for the Procurement and Assignment Service for Physicians, Dentists and Veterinarians of the War Manpower Commission.

The survey brought out that the withdrawal of men below 45 years of age from a population has not the same effect as withdrawing men above that age. The general practitioners under 45 years of age were found to have a patient load 25 to 50 per cent greater than that of other men between 45 and 64 years of age and more than twice as large as that of general practitioners 65 years and older.

INFLUENZA AND PNEUMONIA IN INDIANA

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Influenza and pneumonia are similar in many respects, including seasonal prevalence, incidence and fatality in specific age groups, and method of dissemination. Hence, it may be helpful to compare the incidence and mortality of these diseases by age groups, by seasons, and by years. Most of the data for this comparison is adapted from the reports of the Bureau of Vital Statistics of the Indiana State Board of Health. Inspection of these data gives the reader a concept of the history, the present status, and the trend of each of these diseases in Indiana. By inference it is also possible to form a general opinion as to the efficacy of modern methods of treatment of pneumonia. The Indiana State Board of Health suggests that although Hoosier doctors have a right to feel some satisfaction with the descending curve of mortality for 1940 and 1941, the data for 1942 are not so encouraging. Indiana doctors have done much to reduce the death rate of pneumonia; however, the tabular data presented herewith suggest that if health officers, educators and physicians should redouble present efforts the outcome might be even more spectacular.

Table I, "Mortality of Influenza by Age Groups in Indiana from 1900 to 1941, Inclusive," reveals that influenza may occur at any age, but is much more fatal during the first twelve months of life.

TABLE I

MORTALITY OF INFLUENZA BY AGE GROUPS IN INDIANA FROM 1900 TO 1941, INCLUSIVE

	Under 1	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-44	45-54	55-64	65-74	75-Over	Total
1941	71	9	5	2	1	9	5	11	12	10	10	6	63	70	128	305	717
1940	67	22	6	6	4	10	8	8	5	11	15	26	44	83	160	315	790
1939	59	13	13	4	6	11	6	17	15	10	17	51	60	99	180	365	926
1938	49	12	1	5	3	7	4	7	4	4	11	11	50	52	94	133	447
1937	89	26	10	2	5	16	21	16	15	19	27	58	108	150	299	318	1,179
1936	84	26	12	11	5	25	8	14	26	23	32	54	92	128	194	289	1,023
1935	70	19	11	12	2	17	14	17	14	18	26	58	80	110	160	256	884
1934	74	22	11	9	3	10	10	13	18	14	20	49	67	89	141	192	742
1933	96	39	10	9	9	29	14	25	14	19	19	58	79	112	183	305	1,020
1932	109	39	13	9	14	21	13	23	25	26	32	74	122	162	263	498	1,443
1931	130	49	15	13	3	30	17	28	21	23	24	79	88	139	190	292	1,141
1930	70	25	4	5	3	17	12	9	18	20	13	43	51	81	117	196	684
1929	207	98	43	17	17	37	24	42	42	33	34	122	135	189	342	592	1,974
1928	206	78	42	17	24	46	28	37	36	43	51	129	137	159	324	596	1,953
1927	89	30	8	8	11	20	13	19	20	22	22	47	73	105	129	224	840
1926	180	80	32	13	18	33	27	26	40	28	52	100	106	147	260	425	1,567
1925	149	57	31	19	14	26	39	26	32	27	49	82	94	145	203	361	1,354
1924	69	23	2	5	6	14	8	15	17	18	17	55	63	86	144	163	705
1923	127	60	29	7	18	36	36	41	42	51	52	114	127	151	315	494	1,700
1922	150	51	18	15	9	30	24	34	30	48	41	105	91	96	175	233	1,150
1921	40	7	5	1	3	13	8	7	6	7	15	27	33	31	46	62	311
1920	195	105	43	27	16	70	45	115	140	205	240	300	255	150	192	192	2,290
1919	260	154	105	171	36	154	82	174	235	320	274	303	196	166	166	133	2,929
1918	363	298	196	125	122	297	250	278	704	925	826	775	265	220	192	465	6,301
1917	52	16	5	4	0	8	7	7	9	13	10	21	32	62	113	206	535
1916	49	19	9	7	1	13	11	8	15	12	15	38	38	100	232	401	968
1915	40	7	7	3	4	12	4	9	8	4	9	19	29	57	113	184	509
1914	19	9	1	1	0	5	4	4	9	9	4	9	16	39	56	107	292
1913	21	10	8	1	1	5	4	4	7	5	5	19	19	44	82	171	406
1912	33	10	7	2	4	9	3	7	8	7	7	17	29	38	79	160	420
1911	42	15	8	7	2	10	4	15	16	8	18	39	45	77	133	220	659
1910	46	18	14	3	4	9	6	9	13	16	16	37	49	72	156	233	701
1909	44	11	5	4	2	2	9	7	6	9	0	19	22	64	98	202	504
1908	32	11	10	6	1	10	10	16	13	11	15	45	67	84	201	335	867
1907	26	12	5	3	0	4	6	11	11	5	18	23	49	62	167	264	686
1906	14	3	5	0	2	2	3	4	3	0	2	7	23	17	55	84	224
1905	43	10	6	0	1	5	4	7	16	3	9	25	31	72	114	245	591
1904	32	4	1	4	0	3	7	6	3	8	7	13	22	41	110	173	434
1903	13	3	3	2	2	2	6	3	4	5	5	11	23	44	80	142	348
1902	47	7	4	4	4	9	4	3	4	2	2	7	18	19	70	98	302
1901	66	14	11	5	4	11	6	12	20	22	22	60	76	98	262	360	1,049
1900	35	7	3	1	2	7	2	3	5	13	7	26	25	38	106	144	424
Totals	3,657	1,528	777	569	386	1,104	816	1,137	1701	2,076	2,090	3,161	3,092	3,948	6,824	11,133	43,999

* State Epidemiologist.

The death rate then falls rapidly to the lowest rate, which occurs in those who are 10 to 14 years of age. The curve now gradually rises to a moderate peak in the group, 30 to 34 years of age, then falls to another low in those 45 to 54 years of age. Then, step by step, it rises to a final high peak in those 75 years of age and over. This final death rate is not, however, so high as that of infants below one year of age.

The distribution of death rates of age groups closely resembles those of pneumonia with the exception that the rate of each age group is much lower than that of the corresponding group for pneumonia.

In Table II, the total deaths from influenza that occurred in Indiana during the interval, 1900 to 1941, are tabulated by months and by years. These data indicate a total of 43,999 deaths for the interval. The median for the interval is 767, the mean 1,048. Table V indicates the relative position of the total deaths of each year with respect to the median.

Summarized as to frequency by months, Table II discloses that most deaths occur in February, fewest in August. Individual variations due to local outbreaks may occur, as for example, 2,092 deaths occurred in October of 1918.

Table II also discloses the endemic and the epidemic character of influenza in Indiana. Inspection of the table reveals that within the interval studied some cases were reported every month with the exception of August, 1905, and September, 1911. Inspection of the totals by years indicates a very irregular incidence. If we regard 767 as the median, then the years 1941, 1938, 1934, 1930, 1924, 1921, 1917, 1915, 1914, 1913, 1912, 1911, 1910, 1909,

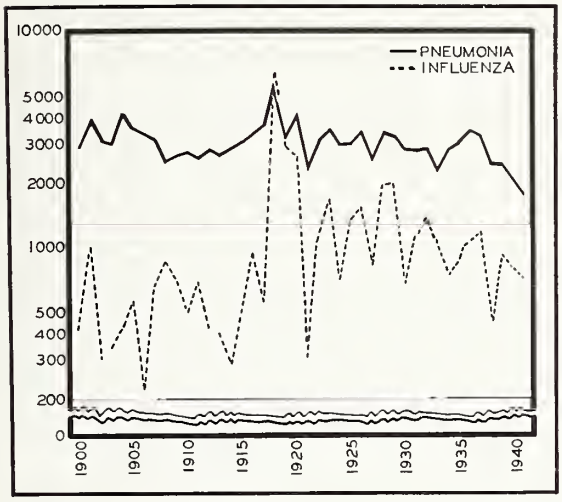
TABLE II

MORTALITY OF INFLUENZA IN INDIANA FOR THE INTERVAL 1900-1941

	Jan.	*Feb.*	*Mar.*	*April*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Total*	*Position in Respect to Median*
1941	217	174	92	59	26	15	11	16	14	13	43	37	717	—
1940	93	210	162	82	55	22	15	18	19	22	28	64	790	plus
1939	59	158	403	106	60	14	6	11	11	18	36	44	926	plus
1938	106	40	58	33	25	8	8	18	17	40	42	52	447	—
1937	321	320	186	96	55	22	15	18	13	31	33	69	1,179	plus
1936	119	137	142	225	127	35	29	15	15	32	39	108	1,023	plus
1935	228	155	133	85	38	26	15	19	33	33	34	85	884	plus
1934	102	137	96	65	58	20	18	27	37	42	50	90	742	—
1933	410	148	103	74	54	18	19	11	28	44	47	56	1,020	plus
1932	84	170	330	165	80	31	18	24	23	28	55	435	1,443	plus
1931	154	274	257	158	88	35	22	18	16	27	40	52	1,141	plus
1930	96	95	80	77	52	28	21	23	45	47	48	72	684	—
1929	966	335	181	96	61	37	31	25	30	52	49	111	1,974	plus
1928	133	119	195	226	274	75	37	24	33	47	68	722	1,953	plus
1927	143	116	116	101	78	38	25	21	35	37	66	64	840	plus
1926	184	160	456	328	105	45	20	23	28	56	66	96	1,567	plus
1925	104	191	374	260	107	30	22	36	29	45	60	96	1,354	plus
1924	94	118	117	91	50	21	7	10	19	28	67	83	705	—
1923	203	537	443	183	93	27	26	28	15	33	48	64	1,700	plus
1922	128	306	355	137	46	19	14	13	10	31	28	63	1,150	plus
1921	48	54	45	22	32	6	6	11	17	22	16	32	311	—
1920	311	1,284	431	105	46	24	13	6	6	15	18	31	2,290	plus
1919	925	554	948	269	64	26	13	17	18	30	32	33	2,929	plus
1918	72	71	70	127	54	6	1	7	64	2,092	1,767	1,970	6,301	plus
1917	111	182	105	59	24	13	3	3	6	5	15	39	565	—
1916	432	236	131	55	28	17	7	3	7	4	23	25	968	plus
1915	55	123	137	76	23	6	3	1	1	6	10	68	509	—
1914	47	51	71	57	28	2	3	1	3	2	6	21	292	—
1913	143	68	83	39	20	6	4	3	3	5	15	17	406	—
1912	72	98	74	46	9	7	5	1	6	11	18	73	420	—
1911	197	172	154	42	19	3	1	4	0	7	23	37	659	—
1910	88	144	201	97	35	10	12	4	3	10	22	75	701	—
1909	54	77	126	135	42	9	9	4	7	4	10	27	504	—
1908	172	316	167	70	40	13	9	14	5	4	22	35	867	plus
1907	71	159	234	51	52	14	7	4	4	2	17	51	666	—
1906	53	44	48	30	7	2	4	2	3	8	11	12	224	—
1905	114	221	151	37	15	7	5	0	4	4	12	21	591	—
1904	45	90	146	70	20	7	2	5	1	4	18	26	434	—
1903	31	51	87	60	37	10	7	9	3	7	10	36	348	—
1902	60	84	51	37	15	4	8	3	7	8	8	17	302	—
1901	269	349	180	128	42	12	9	10	3	5	12	30	1,049	plus
1900	53	70	93	101	34	19	12	4	1	13	8	11	424	—
Total	7,375	8,398	8,017	4,330	2,218	789	522	514	642	2,974	3,040	5,150	43,999	

FIGURE I

A SEMI-LOGARITHMETIC DIAGRAM COMPARING THE TOTAL ANNUAL MORTALITY OF PNEUMONIA AND INFLUENZA IN INDIANA FOR THE INTERVAL, 1900 TO 1941, INCLUSIVE.

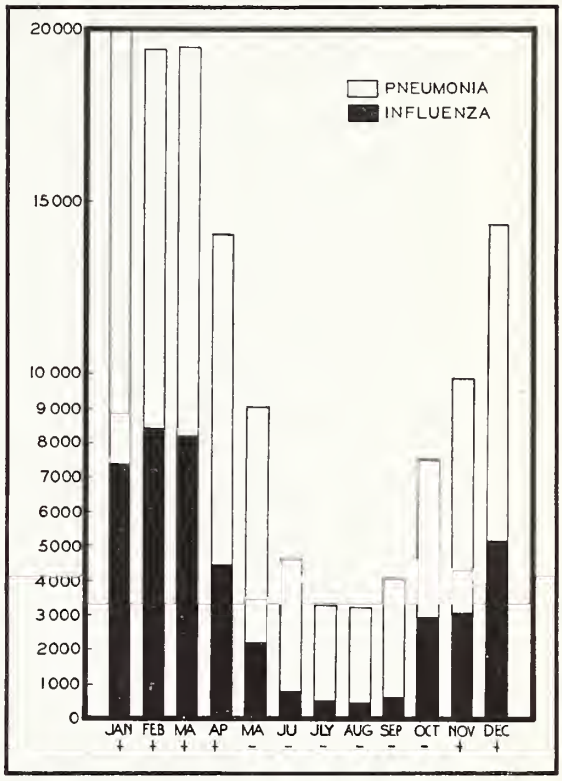


In this figure the absolute number of deaths from pneumonia for each year of the interval, 1900 to 1941, inclusive, is compared with the corresponding number for influenza for the same interval.

The diagram discloses that, as a rule, the number of deaths from pneumonia greatly exceeds the number due to influenza. In pneumonia, the death rate is not subject to the extreme fluctuations characteristic of influenza. The curve of the death rate from influenza appears to be rising and shows no indication of a permanent trend to a lower mortality rate. In contrast, the rate for pneumonia has, during 1940 and 1941, fallen to the lowest level of the entire observed interval. This is probably due to new advances in treatment.

FIGURE II

TOTAL DEATHS FROM INFLUENZA AND PNEUMONIA OCCURRING IN INDIANA DURING THE INTERVAL, 1900 TO 1941, INCLUSIVE—A COMPARISON OF MONTHLY MORTALITY.



Plus—Above the Median
—Below the Median

TABLE III

PNEUMONIA IN INDIANA, DEATHS BY AGE GROUPS, 1900 TO 1941, INCLUSIVE

	Under 1	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-44	45-54	55-64	65-74	75-Over	Total
1941	336	47	16	11	7	19	16	16	19	31	40	85	135	190	285	523	1776
1940	400	66	26	12	5	21	14	16	16	32	37	75	145	225	351	641	2082
1939	346	66	19	20	9	25	15	29	22	28	55	120	217	285	461	735	2452
1938	352	86	30	17	9	40	20	44	42	52	54	154	222	297	435	618	2472
1937	479	103	29	27	15	59	30	51	68	66	61	240	332	403	523	818	3304
1936	411	120	40	17	17	62	23	73	64	87	113	276	366	402	500	928	3499
1935	392	98	33	24	20	69	35	54	64	87	80	264	309	349	484	712	3074
1934	429	123	40	23	17	50	31	34	50	55	79	206	248	325	489	632	2831
1933	357	96	48	18	8	37	30	40	37	43	60	135	190	240	366	558	2263
1932	411	113	40	23	16	60	43	42	51	59	73	171	231	298	448	790	2869
1931	519	161	61	24	15	63	41	54	51	65	67	202	208	248	405	613	2797
1930	509	126	53	26	18	61	27	60	48	58	80	213	230	275	443	591	2818
1929	612	153	59	35	20	69	27	61	70	68	87	241	243	322	507	710	3284
1928	604	197	63	24	18	63	39	59	63	83	84	210	247	318	490	836	3398
1927	518	141	53	35	19	47	27	45	51	54	51	167	185	260	385	533	2571
1926	735	252	80	36	39	59	34	46	53	56	95	180	221	299	514	724	3423
1925	598	142	64	40	13	65	25	62	62	79	68	193	208	322	494	629	3064
1924	689	150	63	28	15	70	28	51	57	77	66	177	212	272	468	598	3021
1923	675	230	110	34	23	60	42	60	67	84	83	211	217	330	490	808	3523
1922	670	225	80	30	22	75	30	60	63	71	75	159	201	285	446	615	3107
1921	550	155	74	29	26	75	24	33	26	46	60	170	109	207	300	465	2349
1920	790	265	120	57	41	30	55	95	149	260	205	330	266	351	502	634	4150
1919	655	178	84	56	35	130	65	85	157	232	192	269	220	263	353	374	3348
1918	755	322	149	92	52	150	125	278	423	586	517	573	522	296	360	440	5640
1917	764	270	89	64	22	69	48	57	72	85	75	223	275	391	494	716	3714
1916	648	196	93	41	24	74	39	71	67	72	67	200	222	344	467	693	3318
1915	801	182	83	38	20	71	30	54	49	64	62	155	210	280	416	583	3098

Table III—Continued

	Under 1	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-44	45-54	55-64	65-74	75-Over	Total
1914	695	204	71	45	22	61	39	54	34	53	43	143	196	293	387	520	2860
1913	647	193	77	57	20	76	31	40	42	52	59	145	180	209	349	495	2672
1912	713	221	105	30	25	60	34	44	57	53	61	149	177	237	359	513	2838
1911	595	167	71	44	27	55	29	62	49	52	68	142	185	239	356	471	2612
1910	731	207	94	39	23	71	24	50	59	58	62	142	169	218	341	452	2740
1909	768	206	103	41	18	65	34	52	53	49	60	134	142	221	309	383	2638
1908	623	163	63	19	22	55	35	50	61	50	63	146	150	223	387	407	2517
1907	639	209	96	57	29	65	40	63	84	90	87	186	243	297	458	559	3202
1906	714	262	127	67	46	91	50	95	77	89	86	210	242	292	445	499	3392
1905	898	251	97	63	28	90	71	89	83	79	90	205	236	313	505	491	3589
1904	919	326	145	87	53	145	72	128	108	98	104	219	274	331	512	581	4102
1903	703	216	107	57	34	102	57	88	83	72	58	155	192	296	374	450	3044
1902	692	246	113	47	39	93	55	93	107	86	96	184	205	254	397	432	3139
1901	758	248	123	73	46	120	66	139	130	119	115	263	269	397	490	467	3823
1900	542	206	113	53	40	82	64	85	95	92	91	193	223	288	325	389	2881
Total	25642	7588	3204	1660	1017	2904	1664	2762	3083	3672	3729	8215	9473	12185	17870	24626	129294

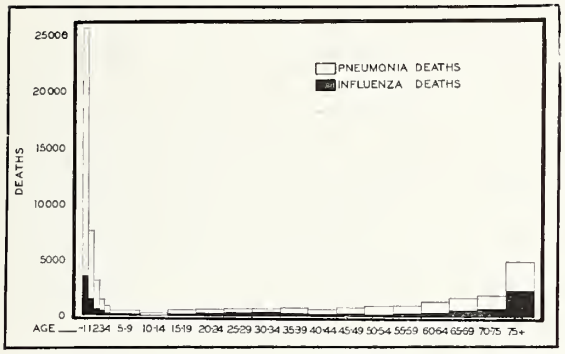
TABLE IV

PNEUMONIA IN INDIANA—MORTALITY FOR THE INTERVAL 1900 TO 1941, INCLUSIVE

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Rate	Position With Respect to Median
1941	346	224	201	133	119	55	78	80	81	126	174	159	1776	51.5	—
1940	322	319	240	193	170	99	74	57	86	118	144	260	2082	60.7	—
1939	397	344	505	217	167	87	85	75	97	119	162	197	2452	70.5	—
1938	452	247	223	219	155	123	95	103	137	207	206	305	2472	71.3	—
1937	658	568	405	283	213	109	79	91	106	190	216	386	3304	95.2	plus
1936	519	536	370	486	297	173	154	94	93	150	239	388	3499	101.1	plus
1935	496	364	358	298	257	155	101	94	129	206	229	387	3074	88.8	plus
1934	385	348	331	254	209	132	86	97	151	169	264	405	2831	85.9	—
1933	355	292	273	201	136	105	89	97	99	172	202	242	2263	69.1	—
1932	333	373	456	295	189	123	81	82	93	159	234	451	2869	90.6	—
1931	456	477	450	304	189	138	75	73	84	137	192	222	2797	86.2	—
1930	408	339	347	319	195	157	98	107	124	184	225	315	2818	86.9	—
1929	756	442	390	229	236	132	71	108	145	199	212	364	3284	102.6	plus
1928	390	313	427	469	333	153	83	92	120	170	219	629	3398	107.7	plus
1927	377	281	306	269	195	141	80	80	116	186	227	313	2571	84.5	—
1926	491	355	599	432	295	154	122	64	97	184	310	320	3423	112.5	plus
1925	344	448	522	357	184	124	78	100	84	190	266	367	3064	100.8	plus
1924	419	362	442	405	245	140	70	66	119	210	244	299	3021	100.7	—
1923	592	710	517	364	251	117	94	88	96	170	283	241	3523	120.1	plus
1922	533	552	507	269	213	82	66	66	88	155	218	358	3107	105.9	plus
1921	453	314	306	194	149	70	58	71	99	150	208	277	2349	80.2	—
1920	624	1266	566	289	331	134	88	80	70	130	217	355	4150	141.6	plus
1919	536	471	832	423	210	73	56	48	68	121	174	336	3348	113.5	plus
1918	519	363	466	565	277	73	72	63	136	1284	883	939	5640	193.7	plus
1917	707	669	613	356	253	129	96	70	107	125	253	336	3714	128.4	plus
1916	705	432	472	366	209	100	67	61	114	164	271	357	3318	115.9	plus
1915	434	580	566	396	138	91	64	42	86	124	212	365	3098	109.6	plus
1914	447	370	510	457	210	88	70	73	65	109	180	281	2860	102.1	—
1913	444	414	452	271	184	99	85	63	71	128	214	247	2672	96.3	—
1912	483	413	441	323	154	71	60	81	94	167	210	341	2838	103.7	—
1911	484	422	373	338	172	56	56	62	82	116	203	248	2612	96.6	—
1910	349	327	417	223	193	127	59	79	87	154	299	426	2740	101.4	—
1909	303	384	546	436	180	64	47	52	75	130	168	253	2638	98.3	—
1908	425	454	414	277	166	74	45	52	69	103	195	243	2517	94.5	—
1907	445	646	532	290	276	144	62	68	75	145	218	301	3202	121.0	plus
1906	490	439	541	404	232	119	83	82	98	109	300	410	3392	129.1	plus
1905	601	781	656	260	189	90	82	69	88	148	253	372	3589	137.6	plus
1904	579	750	761	576	326	115	101	69	86	135	251	353	4102	158.4	plus
1903	450	424	419	330	240	129	83	86	114	134	246	389	3044	118.4	—
1902	473	535	497	371	207	104	70	97	113	169	196	307	3139	122.9	plus
1901	655	673	646	466	280	120	72	74	90	156	202	389	3823	150.8	plus
1900	373	435	616	498	234	94	62	65	56	89	136	223	2881	114.5	—
Total	20008	19456	19511	14105	9058	4663	3302	3221	4088	7571	9955	14356	129294		

FIGURE III

INFLUENZA AND PNEUMONIA IN INDIANA FOR THE INTERVAL, 1900 TO 1941, INCLUSIVE—A COMPARISON OF MORTALITY BY AGE GROUPS.



The Figure clearly reveals the striking similarity of the two curves in the various age groups and also the greater virulence of the pathogen of pneumonia. In both diseases the death rate is highest at the extremes of life's span, and in both it is lowest at the age of ten to fourteen years.

1907, 1906, 1905, 1904, 1903, 1902, and 1900 had an incidence less than the median. Conversely, the incidence was above the median in 1940, 1939, 1937, 1936, 1935, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1923, 1922, 1920, 1919, 1918, 1916, 1908, and 1901. Expressed in other words, periods of excessive incidence varied in length from one year to two years, three years, and five years. Periods of diminished incidence varied in extent from one year to two years, three years, five years, six years, and seven years. If one adopts 1,000 reported cases as the minimum number necessary for an epidemic, then 1901, 1918, 1919, 1920, 1922, 1923, 1925, 1926, 1928, 1929, 1931, 1932, 1936, and 1937 were epidemic years in Indiana. The greatest epidemics occurred in 1918, 1919, and 1920, with the peak in 1918. Two epidemics lasted for three successive years, four for two successive years, and one lasted one year only. Intervals between epidemics were one year in four instances, two years in one instance, and six years in one instance.

Deaths from pneumonia in the various age groups are illustrated in Table III. This table indicates that pneumonia is the most serious of all the communicable diseases. Of the various age groups, infancy has the least resistance; next, the period 75 years and over. The death rate is lowest in the group, 10 to 14 years of age.

In Table IV, "Pneumonia in Indiana, Mortality for the Interval, 1900 to 1941, Inclusive," deaths are tabulated to show the relation of the number of deaths by years or months to the total mortality. A total of 129,294 deaths occurred during the observed interval.

Considered by years, the morbidity curve of pneumonia shows little tendency to form peaks characteristic of epidemic diseases. If 3,500 deaths are far enough above the median (3054) to be considered as epidemic, the years of high mortality are: 1901, 1904, 1905, 1917, 1918, 1920, and 1923. In each of these years the death rate of influenza was also unusually high or was increasing. During the outbreak of pandemic influenza in 1918, the

TABLE V

RELATION OF THE NUMBER OF THE ANNUAL DEATHS FROM PNEUMONIA AND FROM INFLUENZA TO THE MEDIAN OF EACH DISEASE FOR THE OBSERVED INTERVAL

PNEUMONIA				*INFLUENZA*			
	No.		*No.*		*No.*		*No.*
Year	*Below Median (3054)*	*Year*	*Above Median (3054)*	*Year*	*Below Median (767)*	*Year*	*Above Median (767)*
1941	1278	1937	250	1941	50	1940	23
1940	972	1936	395	1938	320	1939	159
1939	602	1935	20	1934	24	1937	412
1938	582	1929	230	1930	119	1936	256
1934	223	1928	344	1924	62	1935	117
1933	791	1926	369	1921	456	1933	253
1932	185	1925	10	1917	202	1932	726
1931	257	1923	469	1915	258	1931	374
1930	238	1922	53	1914	475	1929	1207
1927	483	1920	1096	1913	361	1928	1186
1924	33	1919	294	1912	347	1927	73
1921	705	1918	2586	1911	60	1926	800
1914	194	1917	660	1910	66	1925	587
1913	382	1916	264	1909	263	1923	933
1912	215	1915	44	1907	101	1922	383
1911	442	1907	148	1906	543	1920	1523
1910	314	1906	338	1905	176	1918	2162
1909	316	1905	535	1904	333	1918	5535
1908	537	1904	1048	1903	419	1916	201
1903	10	1902	75	1902	465	1908	100
1900	173	1901	769	1900	343	1901	282

TABLE VI

COMPARISON OF TOTAL SEASONAL DEATHS CAUSED BY PNEUMONIA, INFLUENZA AND TUBERCULOSIS FOR THE INTERVAL 1900 TO 1941

	1900-1941		*1900-1941*		*1922-1941*	
Season	*Pneumonia*		*Influenza*		*Tuberculosis*	
	Cases	*Per Cent*	*Cases*	*Per Cent*	*Cases*	*Per Cent*
Winter	53820	41.70	20923	47.555	10022	25.013
Spring	42674	33.00	14595	33.171	11469	28.624
Summer	11186	8.60	1825	4.147	9789	24.431
Autumn	21614	16.70	6656	15.129	8787	21.931
Total	129294	100.00	43999	100.00	40067	100.00

In each disease more fatalities occur in the winter and the spring. The month of highest death rate is: for pneumonia, January; for influenza, February, and for tuberculosis, March. The lowest death rate occurs in the summer for influenza and pneumonia, and in the autumn for tuberculosis.

total of the deaths due to pneumonia was 5,640, a rate of 193.7 per 100,000 of population.

Table IV also illustrates the endemic nature of pneumonia. Reported cases occur in each month of each year. Not until 1940 did the rate fall to a level lower than that of any previous year.

ABSTRACT: A NEW FORM OF SULFATHIAZOLE CURES A SKIN DISEASE IN A DAY

A single application of a new physical form of the sulfonamide drugs in the treatment of impetigo contagiosa, a pus producing skin infection caused by staphylococci, has, from his experience with the method thus far, been found to cure the condition within a day and to stop the spread of the disease, T. N. Harris, M.D., Philadelphia, reports in *The Journal of the American Medical Association* for February 6.

"Until quite recently," Dr. Harris says, "the therapy of impetigo was rarely considered in the medical literature. . . . Since the outbreak of the present war, however, there has been a sharp increase in the frequency of such investigations, and many studies of new methods of treatment of impetigo have been reported in the British literature. This is quite in keeping with the natural history of the disease, since its spread is favored by a deterioration in sanitation and by crowding. . . ."

Dr. Harris points out that in other treatments the percentage of cure ranges from 80 to 100 per cent and the number of days required ranges from a few days to almost a month, usually ten to fourteen days. During this period treatments must be administered often and removal of crusts requires frequent attention.

He says that the basis for a rational improvement in the treatment of impetigo by local application of the sulfonamides was provided by Leslie A. Chambers, Ph.D., and his associates in a report published in *The Journal* for May 23, 1942. Chambers and his associates at that time announced the development of a procedure which reduces the crystal size of sulfathiazole into what they term microcrystals. Dr. Harris says that this method yields a stable suspension of fine crystals of sulfonamide and that the drug remains stable in pure water for at least many months. "This last property presents an important contrast to the behavior of a crushed ordinary sulfonamide compound, which settles and cakes when suspended in water," he explains. "Finally, when allowed to dry, the suspension becomes a fine . . . powder. . . .

"In the present study a 20 per cent suspension of microcrystalline sulfathiazole was used. In treating impetigo locally with this preparation I employed the following technic: A drop or two of the suspension was poured onto a small gauze dressing. It was found that the water would seep into the few layers of gauze to a greater extent than did the crystals. This would concentrate the sulfonamide crystals on the surface of the dressing, leaving a small white collection of pure sulfathiazole in water, of the consistency of fresh mud. The actual treatment consisted simply in applying the dressing thus prepared to the skin, the bit of sulfathiazole paste being placed in contact with the lesion. The only preparation of the area was washing with ordinary soap and water, with removal of all the crusts. . . . One small dressing was applied to each lesion.

"On removal of the dressing twenty-four hours later, the lesion was always found to be healed. As the dried dressing was removed the residual drug would come off the site of the lesion in a dust or a . . . powder . . . .

"Fifteen children from institutional and private practice were treated in this manner, with a total of 293 lesions. . . . The observations made when the dressing was removed a day later were identical in 290 of the 293 lesions treated. . . . Thereafter, no further treatment or care would be given to the site of the lesion. . . . In no instance did any additional lesions develop or appear from the time of treatment of the original ones, either on the subjects or their institutional neighbors. . . .

"The improved results in the treatment of impetigo reported here are due only to the physical form of the agent and its chemical simplicity. Ordinary sulfonamide powders cake on lesions of impetigo. . . . Although most of the lesions were observed twenty-four hours after treatment, there is no evidence that that length of time is required. The last patient of the series, originally exhibiting 23 lesions, had the dressings removed in about sixteen hours, with the usual results. . . . The complete halting of the spread of the disease from the time of treatment, which has been observed thus far, is of considerable practical importance. Taken in conjunction with the single treatment required, this means that the checking and treatment of an epidemic of impetigo, even in a crowded group, is completed within an hour or so of the time treatment is begun.

"Sulfathiazole was used in these studies because of its availability and its effectiveness on both streptococci and staphylococci. Microcrystals of other sulfonamide compounds have been produced and would presumably be as effective against susceptible bacteria."

ALLERGY IN HEARING DEFECTS*

HUGH A. KUHN, M.D.
HAMMOND

Our information on the subject of the relation of allergy to ear and hearing difficulties is incomplete. This question has been studied only for the last fifteen years, but many articles and much compilation of effort has been built up in this time, each effort tending to clarify more and organize better the many observations and abundance of factual information that has accumulated. In the past few years we have become increasingly confronted with hearing difficulties that did not fit well into the usual category for analysis and in cases that were also allergic; there seemed to be a definite improvement in hearing when the patient was placed under allergic management. Then with some stimulus our interest led us to consider allergy as a factor to be thought of in cases of deafness or declining hearing. We noted some types of deafness that seemed to be aggravated by allergies and some ear pathologies that seemed to have a superimposed allergy. Many children who had been tonsillectomized and had their adenoids removed on account of hearing difficulties and who greatly improved immediately following the operation but subsequently relapsed into the same hearing difficulty were found to be allergic, and an attempt to evaluate these findings and deductions led us to a study of the entire group of cases.[1]

SYMPTOMS

The most characteristic symptom that we noted in this series of cases was their variability, both as to presence and intensity from day to day and hour to hour. The following were noted:

1. Fullness of one or both ears.
2. Loss of hearing or dullness of hearing.
3. Deep dull pain in ear.
4. Itching in back of nose and between the nose and ear.
5. A tinnitus, vertigo, or nausea.
6. Tightness and drawing in the ear.
7. A deep burning in the ear.

DIAGNOSIS

If a patient presents himself with a change in his hearing that is variable and with some of the symptoms mentioned above, our audiogram and the patient's feeling, as far as the ears are concerned, is compared with one made twenty minutes after a hypodermic injection of adrenalin. If there is a change in the hearing and the feeling of the patient's ears subjectively, we consider the allergic influence to be great enough to warrant an investigation from this standpoint. We may also find a positive nasal secretion eosinophilia or a blood eosinophilia confirming it.

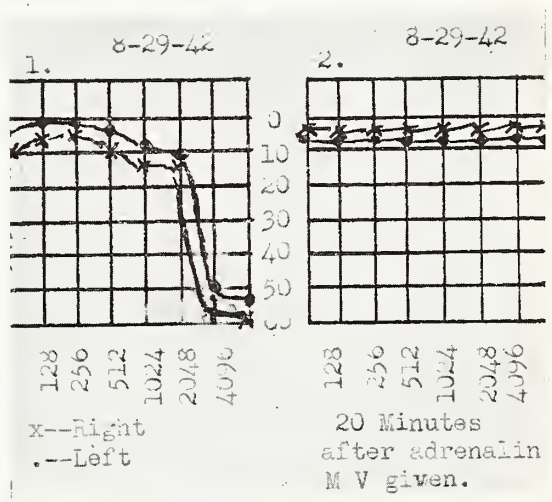
A great many ear disorders have been listed as being due to allergic conditions:

1. Those of the external canal
   a. Eczema.
   b. Urticaria.
   c. Purpura.
   d. Contact dermatitis.
2. Eustachian tube edema.
3. Middle ear edema.
4. Internal ear.
   a. Vertigo.
   b. Deafness.
   c. Tinnitus.
5. Auditory nerve
   a. Vertigo.
   b. Deafness.
   c. Tinnitus.

Jones[2] quotes the personal statement of Ramerez: "The disturbance of the autonomic nervous mechanism causes various vascular reactions that are classed as allergic phenomena . . . . It is because of the unknown possibilities that subject all obscure diseases and a few of the classified diseases to the question of their allergic origin."

Craft[3] has written in careful detail of the allergic eczema of the external ear and of migraine.

FIGURE I



W. E., aged 41—This case has not been worked up from an allergic standpoint, but the audiogram shows what we may expect if we are successful in its management, and it also shows in the first audiogram what appears to be a nerve deafness, but is actually allergic deafness.

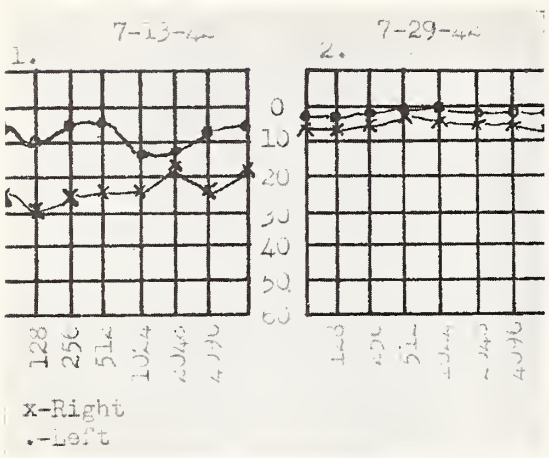
* Presented before the Section on Opthalmology and Otolaryngology of the Indiana State Medical Association at French Lick on September 30, 1942.

[1] Kuhn, Hugh A.: Allergy in Relation to Otolaryngology, *Annals of Otology, Rhinology and Laryngology.* March, 1942. Vol. 51, p. 162.

[2] Jones, Marvin F.: Manifestations of Allergy in the Inner Ear. *Annals of Otology, Rhinology and Laryngology.* December, 1938. pp. 910-916.

[3] Craft, K. L.: Allergy in its Relation to Otolaryngology, *Journal Indiana Medical Association.* 28:133. 1935.

FIGURE II



C. G., aged 10.—The nose was open and entirely free of symptoms, findings were negative, but the nasal smear was 25 per cent positive for eosinophils, and the adrenalin test was highly positive for allergic ears.

Proetz[4] describes cases of Ménière's syndrome controlled by removal of offending allergins. Dean[5] analyzed cases of lowered hearing and cases of Ménière's that had complete recoveries by avoiding certain allergins, and in whom recurrences could be initiated by giving offending allergins. Hensel[6] states that in allergic individuals it is quite impossible to make a diagnosis of allergic otitis media unless a marked predominance of eosinophils is demonstrated in the aural discharge.

However, it would seem that in cases suspected of having hearing difficulties that are of an allergic basis, and who have had considerable improvement demonstrated in their hearing after avoiding or being hyposensitized to certain allergins, one is led to the conclusion that there is a definite pathological chain that results in interference in hearing, whatever the exact pathological picture may be. Many times, in acute nasal allergins with edema and watery discharge, acute secretory catarrh comes on and several observers who have talked about this particular situation have almost uniformly agreed that the secretion in the middle ear rarely contains eosinophils. This coincides with our observations. Only in a few occasions have we found eosinophils in the secretion after aspirating an acute catarrhal otitis.

In chronic otitis with drainage, mucoid in character and sometimes even with pus, cytologic study may show eosinophils, and on two occasions the nasal findings were not of enough consequence to draw one's attention to a diagnosis of nasal allergy, if these were promptly dried up following investigation therapy. In another case there was a continued thin, mucoid to watery secretion, following a radical mastoidectomy, that always came from the eustachian tube area, and on study it contained almost 100 per cent eosinophils. These observations coincide with the observations of L. W. Dean[5] and A. W. Proetz[4].

Henderson[7] states that in the field of allergy, which is new and but partially explored, we must be critical and constantly on guard lest we be mislead by chance appearances. In presenting these views and this group of cases we realize that we are speaking of a pathologic picture of which I have no section to show you, but the findings and audiometric changes, we believe, justify a conclusion after the therapeutic results are achieved.

Criep[8] states that the pathologic physiology in allergy of the ear is in all likelihood an edema of the various structures of the internal ear. The symptoms depend on which are involved in the process.

ALLERGIC FINGINGS

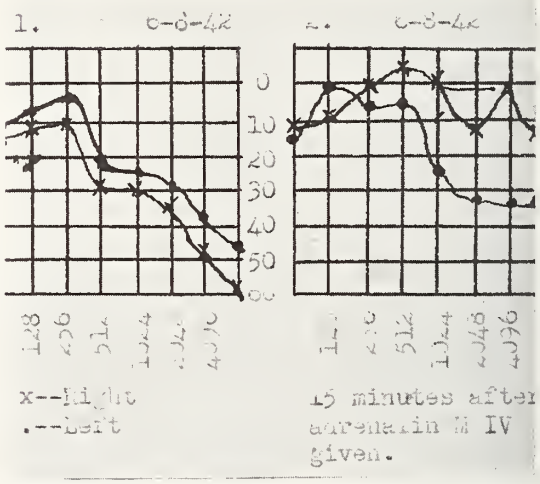
Of 1022 proved allergic patients, 766 were tested and treated. The findings showed:

1. 1.8% of all ear cases are proved allergic.
2. 29.5% of all nasal cases are proved allergic.
3. 1.5% of all throat cases are proved allergic.
4. .4% of all eye cases are proved allergic.
5. 4.7% of all cases are proved allergic.

Results of tests:

1. 66.1% reacted to both food and inhalants.
2. 25.3% reacted to inhalants only.
3. 8.6% reacted to foods only.

FIGURE III



B. H., aged 13.—This case illustrated the influence of adrenalin.

[4] Proetz, A. W.: Allergy in Middle and External Ear. *Annals of Otology, Rhinology and Laryngology.* **40**:67. 1931.

[5] Dean, L. W.: Allergic Diseases of the Ear. *Nelson Loose-Leaf Medicine of the Ear.* Copyright 1939. Thomas Nelson and Sons —New York.

[6] Hansel, F. K.: *Allergy of the Nose and Paranasal Sinuses.* C. V. Mosby Company. St. Louis. 1936.

[7] Henderson, A. T.: Practical Aspects of Allergy. *Canadian Medical Association Journal,* 33; January, 1941.

[8] Criep: Allergic Vertigo. *Pennsylvania Medical Journal.* **43**:258-262. December, 1939.

The audiograms show some changes in hearing of representative cases in the group that we have called allergic deafness.

CONCLUSION

There is an appreciable number of patients with lowered hearing due to an allergy.

The audiogram is changed in positive cases by giving adrenalin, and these positive cases are improved by allergic management.

There may be a combination of pathology with a superimposed allergy.

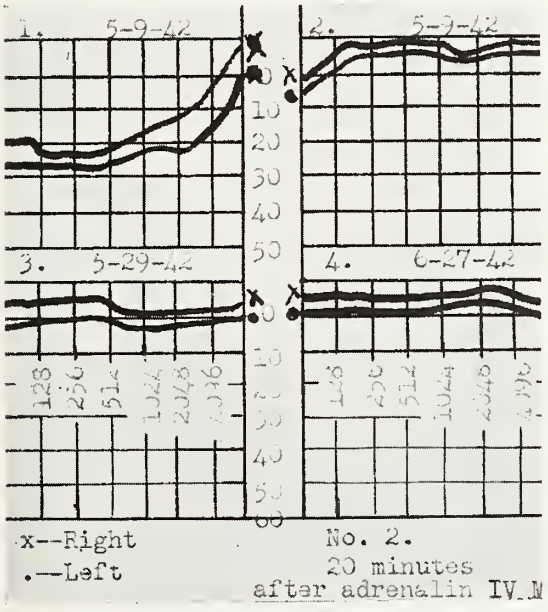
DISCUSSION

Kenneth L. Craft, M.D. (Indianapolis): Allergy is a huge subject. We don't know very much about it, but we have learned enough, I think, to recognize a very definite connection between allergy and many of the conditions for which we are consulted in our offices day by day. As time goes on, I think we are coming to realize more and more the importance of allergy and its connection with ear, nose and throat conditions. It is by such discussions as we have just listened to from Doctor Kuhn that we will learn the significance and importance of allergy as it is related to our daily work.

Doctor Kuhn has confined himself largely to the relation of allergy to hearing difficulties and has covered that subject so well that I do not feel that I can add much from that standpoint. I will, therefore, confine my remarks largely to allergy in its relation to other ear conditions.

Allergy, as it affects the external ear and the canal, manifests itself in eczematous eruptions of varying severity. In differentiating the allergic type from other forms of eczema, one important diagnostic point is that allergic eczema will not yield to local treatment. Also the patient often will show various other allergic manifestations and may give positive skin reactions when tested with allergens to which he is sensitized. Another type of allergic reaction seen in the external ear is contact dermatitis, the lesion usually being caused by direct contact with certain drugs and medicaments used in treating otitis media and other non-allergic ear conditions.

FIGURE IV



E. S., aged 7—This case illustrated in the second audiogram the possibilities of adrenalin treatment, and in the fourth audigram the improvement reached within seven weeks.

The eustachian tube and middle ear are inaccessible to exposure to pollens and other inhalant allergens and seldom react directly to this type of allergy. Allergic otitis media with rupture of the drum membrane and drainage from the middle ear has been reported by some observers. However, although otitis media often is associated with allergic rhinitis, it probably occurs only as a secondary infectious complication. True primary allergic otitis media is rare. Hansel (Lindsay, *Archives*, June, 1942) states, "It is impossible to diagnose allergic otitis media unless there is a preponderance of eosinophils in the aural discharge." Personally, I have never been able to demonstrate eosinophils in abundance, and in their characteristic grouping, in discharge from the middle ear.

In recent years several investigators apparently have demonstrated a very definite hook-up between the symptom complex of Ménière and an etiologic background of allergy. It is true that the great majority of individuals known to be allergics never have been afflicted with Ménière's syndrome and such able workers as Thornwald and Crowe state that they have found no evidence that allergy causes this condition. Other men, however, report findings which seem conclusive in establishing allergy as a causative factor in at least a considerable number of cases of Ménière's symptom complex. Lindsay's theory regarding the syndrome is that it is caused by hydrops or fluid in the labyrinth. Allergy explains the hydrops of the labyrinth better than anything else—causing localized edema with outpouring of fluid into the tissues of the cochlea. Several cases improved considerably in hearing and in vertigo after elimination of food allergy.

Quinke and Kobrak believe that angioneurotic edema causes some attacks of Mènière's, brought about through vagosympathetic instability and resultant labyrinth disturbance. Kobrak cites three cases of Mèniére's, in each of which the posterior fossa was entered (under a wrong diagnosis) and the dura uncovered, followed by the discharge of a large amount of fluid. Kobrak thinks these cases were examples of angioneurotic edema, allergic in origin. Dr. L. W. Dean, after an exhaustive research at the Oscar Johnson Institute at St. Louis, cited many cases of Ménière's in which a definite relationship with food allergy was established and stated that all of his own cases of Ménière's suffered also from other manifestations of allergy.

Duke and Rowe reported several cases of Ménière's caused by allergy. Some of these gave positive skin tests and showed other allergic manifestations, and were relieved by adrenalin and by avoidance of contact with the allergens to which they were proved to be sensitized. In two of Rowe's cases the attacks were again precipitated by feeding the offending foods. Other clear-cut cases were proved to be due to house dust, dog hair and orris powder.

Dr. M. Atkinson, of New York, has made some very interesting observations concerning the relation of histamine to Ménière's syndrome. He thinks that many cases of Ménière's are caused by hypersensitivity to histamine, and that in these cases there is an allergic reaction in the labyrinth to histamine similar to a skin reaction. About one-fourth of all the cases of Ménière's studied by Atkinson gave positive skin reactions to histamine. All of these patients were markedly relieved by desensitizing treatments with histamine, and seven of nine so treated were entirely relieved for many months. The test is intradermal, must be carefully made and correctly interpreted. Treatment with histamine is indicated only for those cases which show positive specific skin reactions, and may even have a deleterious effect upon cases not proved to be sensitized to this substance.

F. K. Hansel, M.D. (St. Louis, Missouri): I am very happy to hear this splendid paper of Doctor Kuhn's. We have had some similar experiences, so we can confirm the observation that he has made.

His adrenalin test, I think, is a very outstanding observation, and it offers a means of making an immediate positive or negative test on the patient.

It seems to me that there are two mechanisms involved in the production of deafness: one is involvement of the eustachian tube, and the other is involvement of the eighth nerve itself.

As I understand, Doctor Kuhn, most of your patients were nasal cases in which the tube was probably involved as a part of the nasal reaction—were they not?

Dr. Kuhn: Yes.

Dr. Hansel: In connection with tubal involvement, we have seen a number of cases in the last two or three years with involvement of the parotid duct and swelling of the parotid gland. In these cases there was a mucous plug containing eosinophils. The swelling of the gland subsided with massaging of the duct and removal of the plug. Involvement of the eustachian tube might occur under similar circumstances.

There have been a number of reports of involvement of various cranial nerves. All the cranial nerves have been reported to have been involved in serum disease, particularly. A few years ago, Cutter of San Francisco had a very interesting case of bilateral deafness occurring as part of a serum disease reaction. He made audiograms and studied the patient throughout the whole course of the disease, until there was finally complete recovery.

Acute reactions, such as acute urticaria or acute angioneurotic edema, which is edema practically all over the body, including the brain, could in some cases produce involvement of the auditory nerve.

FIGURE V

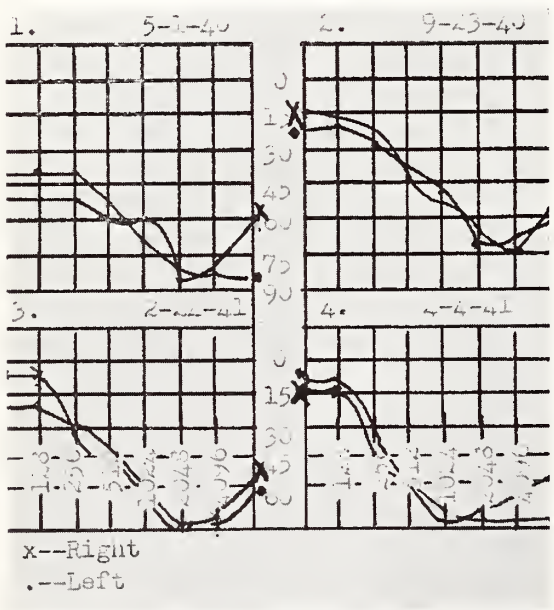
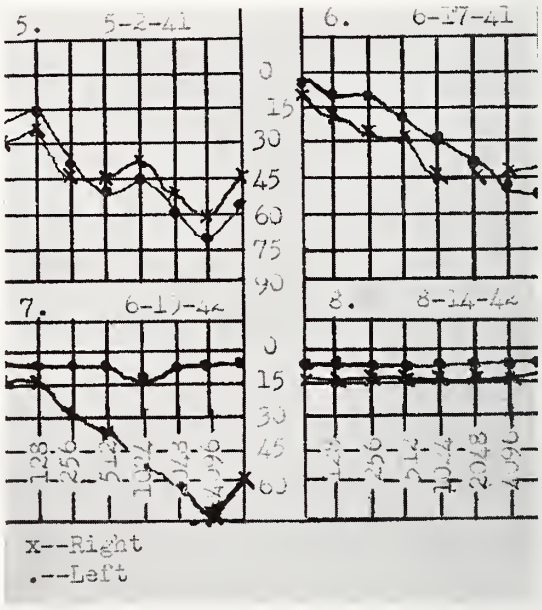
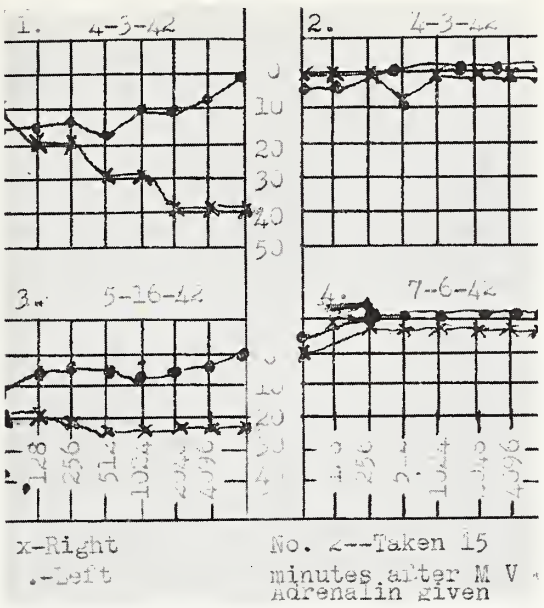


FIGURE VI



C. McQ.—This child was in a lip-reading class in school, and the improvement in audiogram No. 2 was the result of x-ray treatment to adenoid remains. The allergy was not discovered until February, 1941. The subsequent improvement, we believe, is due entirely to the allergic management. The child had made a great deal of improvement in his psychological reaction and awareness, especially in school.

FIGURE VII



R. S. Jr., aged 9—This case shows a characteristic improvement over a three-month period.

In the Ménière cases we feel that in most of them the symptoms are associated with some generalized edema. We have seen it in some cases with allergic headache, so that probably there is involvement of the auditory nerve in connection with this generalized edema and one would rely, I would think, more upon the association of other manifestations of allergy with Ménière's disease rather than picking out a case with only Ménière's disease and proving it was allergy. I think that is rather difficult to do in some instances.

A few words in regard to histamine. We have had a number of cases of so-called "histamine headache," the unilateral type of headache, with pain in the eye and pain in the face, in which the response to histamine treatment was very satisfactory.

We found that in these cases there was no association of any allergic manifestation, so that there must be a similar group of cases in which the auditory nerve is involved and the Ménière type of syndrome produced, probably on the basis of histamine sensitivity. This would be an entirely different group than that in which there are definite allergic manifestations.

Dr. Albert C. Furstenberg (Ann Arbor, Michigan): I believe that there is not very much I could add to the discussion without getting away from the subject, but I think we have to look upon Ménière's disease as a condition that is probably due to several different influences.

Most of us, I believe, will agree that it represents some disturbance of the end organ of the auditory nerve, and in one instance, perhaps, it may be a metabolic disturbance; in another it may be an anatomical one, perhaps disturbed circulation or some deformity of the blood vessels in that region, or some anomaly of the blood vessels in that region; and in other instances it is undoubtedly due to an allergy.

If I got into a discussion of Ménière's disease, I would be getting away from the subject, and I don't want to do that. I should like to say, however, that Doctor Kuhn has obviously made a splendid observation and he has followed it through. It certainly is impressive, and I think it is something that we ought to give a good deal of attention to in the treatment of deafness.

AN UNUSUAL INTRANASAL TUMOR *

BERT E. ELLIS, M.D.
INDIANAPOLIS

This case report is presented because it concerns a very rare tumor; second, because of the age of the patient; and third, because it illustrates an approach which I believe can be used in many intranasal tumors.

The patient, a girl twelve years of age, was admitted to the Riley Hospital on March 3, 1941. The chief complaint was frequent and repeated nosebleeds with some spreading of the base of the nose on the left side. Daily bleeding had been noticed for five weeks prior to her consulting the family physician, who found a growth in the left side of the nose which he diagnosed as a polyp. She was referred to the hospital where the admitting room physicians also diagnosed it as a polyp.

A small piece of the tip of the tumor was removed on March 19, 1941. The laboratory report revealed a blood clot with a small amount of granulation tissue. It should be noted that there was profuse bleeding at each biopsy, much in excess of what might be expected in the case of a polyp.

A larger specimen was removed on March 25, 1941. The specimen, 1½ cm. long, was taken from the tip of the tumor which was necrotic at the lower end. The patient lost several ounces of blood at this biopsy. Again, the laboratory reported a pyogenic granuloma with no evidence of malignancy.

On April 23, 1941, the patient was given avertin, and an external ethmoid incision was made in order that the tumor might be approached from above. Profuse bleeding was encountered each time the tumor was touched, but in spite of the blood prac-

* Presented before the Section on Ophthalmology and Otalaryngology of the Indiana State Medical Association at French Lick, September 30, 1942.

tically all of the tumor was removed and the raw surfaces in the nose were cauterized by electrocoagulation.

The patient was given 500 cc. of blood immediately following the operation. The tumor consisted of a friable mass which practically filled an ounce medicine-glass. It filled the anterior ethmoid cells and involved the naso-antral wall. The pathologist's report showed it to be a papillary adenocarcinoma, grade 1 or 2. The patient received 500 r. units of x-ray therapy preceding the operation and 1600 r. units after the operation.

On June 4, 1941, a Caldwell-Luc operation was done so as to be sure that there was no cancerous tissue in the antrum and in order to remove any suspicious fragments of tissue. The laboratory, however, reported no evidence of a malignancy in the specimens removed at this time.

During her stay in the hospital this patient had had a chronic discharging right ear. Pain began in this ear April 29, 1941. Post-auricular tenderness and swelling later appeared, and it was necessary to do a simple right mastoidectomy. Her recovery was uneventful.

This patient has been watched closely since her dismissal from the hospital, but no tissue which even looks suspicious has been seen to date. Biopsies were taken when the Caldwell-Luc operation was done, but no malignant cells were found. The patient is gaining weight and is in normal health at the present time.

This case is not reported as a cured case even though there is no suspicion of a recurrence after one and one-half years. The rarity of the tumor in a child of this age makes it seem worth reporting.

I also wish to comment upon the method of approach in operating this case. I believe many of these cases can be thoroughly cleansed without extensive deformity by doing a combined external ethmoid, a Caldwell-Luc, and an intranasal operation. The first operation should largely be a matter of removal of the bulk of the tumor. At a second trial the base of the tumor may be more successfully cauterized because of better hemostasis.

Ringertz has reported ten cases of adenocarcinoma of the nasal cavity, none of which was under twenty years of age. The average age in his series was 54.1 years of age. He divides these tumors into the alveolar and pseudo-papillary type and believes that the pseudo-papillary originates in the epithelium of the surface and crypts of the mucous membrane, whereas the alveolar type arises in the alveolar glandular parenchyma. There are, of course, transitional or mixed types.

Metastases are extremely rare in such tumors, but they are very destructive by direct extension. The common cause of death in such cases is infiltration into the base of the skull. One case is reported in which the tumor extended to the external auditory canal.

Eight of the ten cases reported by Ringertz died. The two living cases have not been followed more than one and one-half years. These tumors are only slightly sensitive to irradiation, and the only cure that can be depended upon is complete removal of the tumor, preferably by electrocoagulation.

Cases such as the one reported should remind us that many of these tumors are not beyond help. We must remember that any tumor which can be entirely removed and which has not already metastasized can be cured. This case is offered to illustrate a method of removing all of the tumor without mutilating the patient.

DISCUSSION

Dr. Carl H. McCaskey (Indianapolis): The members of the department who are here remember this case quite well, I know, because we had it presented two or three times in our departmental seminar. I might say that we put Dr. Ellis up against quite a task. When we have our two weeks' course in anatomy in the spring, we have one or two days devoted to surgery, so we turned him loose on this case.

We all observed the case and followed it through. It presented two or three points that are worth while. The first is that if he had followed the pathologist's report, on the first two biopsies, it is questionable whether the patient would be here. It goes to show that one has to get more than a superficial biopsy of tumors like this one, when taking biopsy specimens, in order to have a correct picture. He brought out that point very clearly.

He also brought out the point concerning the operative procedure. Even in nasal fibroma and tumors of this region we have been more apt to try to do intranasal surgery, when this type of procedure is much better and the tumor is more accessible, for we can do more things with this operative technic than with the intranasal technic.

I think the ultimate result of his whole procedure in this case is rather admirable. Of course, we always have to consider in our biopsy record, whether there was irradition before biopsy. Sometimes that changes the picture. I think from the specimens we have that this definitely was this type of tumor, and not sarcoma.

Dr. Ellis: Our pathologist took a good deal of pains to make an accurate diagnosis on this. It fills all the specifications, particularly Ringert's description, which I think is a pretty good bible on intranasal tumors.

To me the slide looks a great deal like papilloma, but our pathologist thinks it is pseudo-papillary adenocarcinoma, which I thought was rather rare in a girl twelve years of age, and I have reported it for that reason.

I hope that three or four years from now we will be able to tell you that she is as well as now. I think she is well, and I think Dr. McCaskey feels that we really have the thing cleaned out. I believe that many of these intranasal tumors can be cured if we follow this method.

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MARCH, 1943

Editorials

THE SECRETARIES' CONFERENCE

For many years past the Annual Secretaries' Conference has been a feature of the Indiana State Medical Association. We recall the early days when a "handful" of such county society officials met in a short session, there to discuss how to increase local memberships, how to collect dues in a painless manner and similar problems. Today, the Conference presents a far different picture—the attendance runs into the hundreds and the program carries the "big names" of medical America.

The 1943 meeting resembled nothing so much as a military convention, what with the Army and Navy uniforms predominating. Lieutenants, captains, majors, colonels, together with one real, live general, provided a "dressing" for the meeting.

The program was well planned, covering our association problems, as well as a frank and full discussion of many of the war problems before the medical profession of today.

President-elect Jacob T. Oliphant, of Farmersburg, welcomed the secretaries, guests and visitors and at once launched the program:

Dr. Carl M. Peterson, American Medical Association head of the Council on Industrial Health, spoke on "Industrial Health in the War Emergency."

Rollen W. Waterson, executive secretary of the Lake County Medical Society, talked about the "Lake County All-Out Medical Plan."

Dr. Albert McCown, director, Medicine and Health Service for the American Red Cross, discussed "Red Cross Activities and Medicine."

Dr. Walter F. Donaldson, secretary of the Medical Society of the State of Pennsylvania, editor of their Journal, and chairman of the American Medical Association War Participation Committee, presented a report of the work of that committee to date.

Dr. Charles R. Bird, chairman of the Indiana Procurement and Assignment Committee, told the audience about what Indiana Medicine had done, is doing, and plans to do in the current year.

The program for the afternoon, which was held in the Indiana War Memorial, was then adjourned for the dinner served in the Indianapolis Athletic Club, following which President Carl H. McCaskey took charge of the program.

Brigadier General David N. W. Grant, air surgeon, was presented and gave a resumé of the work of the Medical Division of the Army Air Corps, both in this country and in foreign fields of war.

General Grant was unstinted in his praise of "American Medicine at War." He told of the training of these young medical men and of their accomplishments in the field of war service.

The program was concluded with "American Medicine at War," by Dr. E. L. Henderson, chairman, Fifth Service Command, Procurement and Assignment Service.

Thus ended another Secretaries' Conference, scoring another "hit" in the long line of similar successful meetings.

THE ARMY MEDICAL CORPS

In the past few weeks we have been privileged to meet and talk with the heads of the medical departments of our armed forces. Some of these conversations were very informal, we might say, also informative. We were much pleased to learn, first hand, of the accomplishments of the thousands of medical men now intimately engaged in the war effort.

Surgeon General McIntyre, of the United States Navy, in addressing the Secretaries-Editors' Conference, gave an intimate story of what is being done by our doctors and nurses in the Pacific Areas. As we have quoted before, he stated that the mortality among the casualties who reached the hospital stations was very low, lower than that recorded in any war of the past.

General McIntyre is more than enthusiastic about his medical contingent, declaring that its record is "tops." He explained that conditions in the South Seas were far different than those to which we are accustomed; tropical temperatures would seem to favor the onset of infections, and this plus the prevalence of the so-called "tropical diseases" add to the many complications. Yet all these are being met.

Attachés of the office of the Surgeon General of the Army also added their bit of praise for the

men of the Medical Corps, citing instance after instance of their accomplishments. Our various base hospital units are now fully equipped, and many of them awaiting orders to leave for the various fighting fronts.

Just very recently we met General Grant, head of the medical department of the air forces of the Army. He had just returned from an air tour of the fighting areas, having traveled some thirty-five thousand miles, during which time he visited practically every unit in his domain. General Grant is an enthusiast; he is an optimist; he "sells" his listeners right at the outset. He is willing to concede that other departments of the armed forces are doing a good job, but frankly reserves the right to declare that "his boys are the cream of the crop."

He is inordinately proud of his Air Medicine School at Kelly and Randolph fields, and at the same time he is proud of the graduates of that school — says they are ready for any emergency.

He cited an incident that occurred in Africa; he had made an inspection of a large camp and was about ready to move on when he learned that one medical officer had not been contacted, this man being some miles away from the main camp. The following day he went to call on this man, but found that he was not in. After a wait of several hours the medical officer appeared, probably much perturbed that he had kept the general waiting. Asked for an explanation of his absence from his post, the young officer told that on the day before he had discovered a case of typhus fever in an adjoining Arab village with a population of about 3,000. He had gone over there and deloused every man, woman and child in the community. The General remarked, "I could not very well bawl him out for making me wait."

Thus, from our personal contact with the medical heads of the various departments of our armed forces we learn, first hand, just what we have and what they are doing. We are justified, therefore, in our conclusion that the Medical Corps of our fighting forces is the finest, best-trained medical group ever formed; that the men of the Army have at immediate hand every medical and surgical care that can be afforded to any army. And the fact that this medical unit is in the main composed of our younger groups but adds to the effectiveness of the matter. They are all "on their toes" and are trained for their special assignments, hence no longer is the medical care of our armed forces a problem.

100% SOCIETIES

PUTNAM COUNTY—L. F. Gwaltney, Secretary
HANCOCK COUNTY—Joseph L. Allen, Secretary
JENNINGS COUNTY—D. L. McAuliffe, Secretary
CLAY COUNTY—Robert K. Webster, Secretary

(Clay County should have been listed with the 100% societies in January—not only was it 100%, but it was the first society to pay the 1943 dues.)

MEDICAL "E" MEN

The Army and the Navy, either separately or combined, are now awarding the "E" flag together with "E" pins for employes, to manufacturing establishments whose efforts in the production of war materiel are considered outstanding. We are quite in accord with the plan and have noted that the employes of these concerns are mighty proud of these "E" emblems, displaying them conspicuously on their person.

But there is a big army of men who have rendered yeoman service to our armed forces — and this without remuneration of any kind — who do not have an "E" badge; in fact, they have nothing whatever to designate them as individuals who are contributing to the war effort. We refer to thousands of the medical profession not actually enlisted in the Medical Corps. It is estimated that some forty thousand physicians participated in the examination of registrants at the outset of the Selective Service plan, many of whom still are thus engaged. Other thousands are active in their connections with state and county procurement boards.

Some forty thousand medical men are now in active service as members of the Medical Corps of the armed forces; these men, as officers, are being paid for their services. But it is the man at home, the man who is giving his all without remuneration of any kind — and not grumbling about it either — of whom we write.

The service men are in uniform; for the most part they are away from home; when they do meet the "home folk" they do not need a distinctive badge of any sort to indicate they are "doing their bit"; they have the uniform. But it is a far different matter for the stay-at-home; no matter what his service may be; no matter how much of his time is devoted to war work, the average citizen knows nothing about that. In too many instances the "finger of suspicion" is pointed at the doctor. "He looks healthy, he seems to be able to take care of his business — why isn't he in uniform?" Such remarks have been directed at more than one Indiana physician these days, much to his discomfiture.

We have men, many of them of the younger group, who have enlisted only to be rejected because of physical disabilities. These defects may be such as not to be noticeable to laymen, hence that group wonders about these young physicians — why he is not in service.

A physician enlisted for the Medical Corps, was accepted and in due time was sent overseas. He was a board-certified specialist, the type that is much needed in his home community. Overseas, it seems, that there was not much for him to do, and for the nonce it was decided to send him back home where he could do much needed work. Another, a man in his forties, though he looks much younger, was rejected because of a bleeding peptic ulcer. Both of these men, in one of our larger communities, are more than uncomfortable due to local criticism

on the part of the public, to say nothing of whispered innuendoes on the part of one or two local physicians. Case after case of this sort might be cited, since they are numerous over the state.

Several suggestions have been made as to what might be done to relieve such situations. At one time the Procurement Board had planned a badge or certificate to be issued to all who had volunteered, but that plan fell through. At present the status of the stay-at-home, no matter how active he may be in local war work, no matter if he had enlisted and had been rejected, no matter if his local board had refused to "clear" him, is, in the eyes of the public, that of a "slacker" — the medical man who should be in service but is not.

It is too late to expect Uncle Sam to do anything about it; Uncle Sam is engaged in the biggest war in the world's history and has plenty to occupy his attention. For various reasons we cannot expect the American Medical Association to do much about it; they, too, seem to be pretty well occupied. So, as we now view it, it is up to the Indiana State Medical Association to handle the problem — just in what manner remains to be seen.

A pin or badge of some sort might be provided to be distributed to such members as deserve it, *under the sole direction of the local procurement boards*. This should be so publicized that the man on the street would readily recognize its meaning; that the wearer is not in active service for one of several reasons; that he is carrying on at home, just as he would if he were in service.

However the matter is taken care of, it merits the immediate attention of our officials; due recognition is merited by all who are doing their bit.

PUBLIC HOSPITAL PROBLEMS

Most public hospitals are politically controlled, and this control in too many instances leads to situations that are of the unsavory variety. Just now Marion County is quite concerned over complaints made relative to certain conditions said to exist at its tuberculosis hospital, these chiefly having to do with the food supply.

According to the Indianapolis press, it has been discovered that the meats furnished this institution have been far below grade and that the price charged for them has been away above the "ceiling price" for number one provisions. It is further charged that *watered* milk has been supplied, and that the charge for fresh eggs is far above that of the normal market. Other similar charges have been made, bringing about an investigation.

The Indiana State Board of Health seems to have taken over the milk situation, and it now appears that this body will "go places" in getting at the crux of the matter. Their hearings, as announced in the press, indicate that they mean to get immediate action, action of the sort that means something.

Practically all of our county tuberculosis hospitals are under the direct control of the Board of County Commissioners; they appoint the Board of Hospital Trustees; they make contracts for all hospital supplies; in short, they are the ultimate control, making it entirely possible for the ugly head of *politics* to be reared far too often.

If there is any class of patients who need the *best* of foods, it is the group in these institutions. Rest, nourishment, fresh air — these three are the trinity of treatment in tuberculosis. If inferior meat, watered milk and questionable eggs are made a part of the daily diet, what can be expected other than a delay in the restoration of the health of the patients. *And there is no occasion for neglect or substitution in any of the three*, since all are available to these folk.

It long has been an enigma to us why eggs furnished to such a hospital should command more than the fair market price. There are, of course, eggs, then there are eggs; there are government graded, strictly fresh, Indiana Grade A; there are "fresh" eggs, and there are "dirties and checks."

These, we believe, are the classifications as made by the Indiana Egg Board, and each grade has its market price, so just why eggs sold to a tuberculosis hospital, no matter under which grading, should command more than this price is quite beyond us.

In this connection, we are reminded of an occasion when a county tuberculosis hospital within our state was being investigated because of the unusually high price paid for eggs. This product came from the farm of a man who was quite an important cog in the local political machine. He had an explanation, a most ingenious one, to the effect that his chickens were fed an ingredient imported from some place or another, most likely Shangri La, and that this particular chicken food item was most important in the production of eggs to be consumed by tuberculous patients, hence the greatly increased cost.

The whole situation should be investigated, not only in Marion County but in every public hospital within our state. We can see no reason why such hospitals cannot be conducted on a business basis. Many of them justify a full-time purchasing agent, one not under the control of a political board. Grand jury investigations have their place, of course, but too often the recommendations of such bodies finally are ignored; the public soon forgets the latest public scandal and things again resume their normal way.

If your dues are not paid,
you are delinquent NOW!

WAR BONDS

We like to talk about War Bonds, and we've been doing just that month after month—and plan to keep at it for the duration. We like to pick up a sheaf of these little "E" Bonds—a few of them not so little—and run our fingers through them. It is a most delightful feeling to do this, and at the same time that we are experiencing a pleasurable feeling we have the deep satisfaction that the money they represent has been used for the best purpose in the world of today, that of buying bullets—*bullets to kill.*

Let's not be wishy-washy about this war thing; a war is waged for but one purpose, that of killing people. Some may talk of other motives, but, after all, war is a matter of killing people. And, to do a good, effective job of this sort, we must have bullets—and bullets cost money, money that you and I have in our pockets, in the bank, or elsewhere. Uncle Sam says he wants that money, doesn't want it lying about, idle.

And that good, beneficent gentleman wants to pay you interest for the use of that money; as a matter of fact, these bonds you buy are "tops" in the matter of investment. They are as safe an investment as can be made at this time. We have been asked, "Do you think you ever will get your money back?" Well, if we don't, then what? If these bonds should be repudiated—and that is what the doubting Thomases have in their minds—your dollar is worth just that much, so where is the difference? On the other hand, should we lose this war, your dollar just doesn't exist, so it all adds up to the same answer.

Hoosier physicians are buying bonds, but not enough bonds and, so we are advised, *there are some that are buying no bonds.* We have gone into this thing with an investigating mind and believe that we know the answers. Some complain that taxes are too high, and some say that living costs have advanced. Yes, taxes are getting to the point where we feel the pinch when tax-payment day comes around and these days are becoming more and more frequent! So we know all about that—we know approximately what we will be called upon to pay as a Federal Income Tax this year and already are wondering just what we are going to do about that. We, of course, know about our Gross Income Tax, and the same goes for the state, city and county assessments.

All these things add up, and when we look at the final tabulation we come to the conclusion that our cloth will have to be cut after a different pattern. It means that we will have to skimp on this and that, cut down on several normal expenditures, play less and work more hours—*this can be done if we will rest when the time comes to rest,* rather than to go to the club or to a night club. It means eating at home, rather than dining out in some ultra-swell night club. There are a lot of things we have deleted for the duration; we would like to take a trip to a southern training camp to visit a son in the Army—to say nothing of seeing the only grandson in the family! But these things are taboo. There are too many vitally necessary expenditures—*and then there are bonds to buy!*

You may not know it, but Official Washington knows, almost to the penny, just what your ability to buy bonds is, and if you are not batting about ten per cent or more, one of these days you will not be asked "Why?" The conversation will be this: "Come on, brother, ten per cent and no foolin'; you've got it, we want it!"

Yes, we've got to buy bonds and we've got to keep on buying bonds until only the Lord knows when, so let's do it with a cheerful smile and not worry about other expenditures, save to cut them to the very bone.

Editorial Notes

The Indiana press apparently is much interested in the recent decision of the United States Supreme Court in the suit against the American Medical Association. Editorial comment is almost universally favorable to the medical profession.

The American Medical Association reports that eleven American physicians have been killed in action in the present war, in 1942. Mortality among American physicians in general was lower in 1942 than in 1941, the total number of deaths being 3,211. However, the average age for last year was 65, as compared to an average age of 65.9 the year before.

The annual Secretaries' Conference has long since come to be a most important part of the program of the Indiana State Medical Association. The January meeting was another outstanding success, and the attendance was good, notwithstanding the exigencies of wartime. We feel, however, that a bit more attention might be given the problems of our county society secretaries in the arrangement of the programs; after all, this is a *Secretaries Conference* and they do have their problems.

Nineteen forty-two seems to have been a "hospital year," from the annual reports we have looked over. In another item we mentioned the activities at the university hospitals for last year, showing an unprecedented number of cases admitted. The annual report of the Indianapolis Methodist Hospital has just been released and it, too, has had a record year, with a total of 34,397 cases admitted. Three thousand one hundred and eighty-one babies were born in the institution during 1942, an increase of 857 over the preceding year.

We have not said much about payment of dues this year, but that little annual duty is more important than ever, right now. In the first place, our county secretaries and the state association headquarters' staff are busier than ever before, and the dribbling in of dues makes for an increased amount of work. Then comes the matter of delinquency. Many of our members depend on the state association for medical defense. This is, of course, their right; it is the thing they are paying for; but if alleged malpractice occurs during a period of delinquency, this defense is nullified. If you do not have your 1943 association card, better contact your local secretary.

Lieutenant Colonel Virgil L. Eikenberry, known to hundreds of Indiana physicians as a member of the recruiting team which visited every councilor district of the state some months ago, died in a Vincennes hospital recently, after a short illness due to a cerebral hemorrhage. Colonel Eikenberry, Hoosier-born and for many years superintendent of the Vincennes schools, was detailed to the recruiting service by the Adjutant General of the Army; in this connection he served with Major Norman Booher, of Indianapolis, representing the Surgeon General of the United States Army.

The subject of chronic brucellosis continues to be of interest to Indiana physicians, and the currently published article on this subject, "The Diagnosis of Chronic Brucellosis," by Dr. D. L. Urschel, of Mentone, adds materially to our knowledge of this subject. Dr. Urschel promises a later paper, reporting his experiences in a series of forty such cases. There can no longer be any doubt as to the prevalence of such a disease in chronic form, although we still have many doubting Thomases. As Dr. Urschel points out, many obscure cases, after the proper laboratory checks, will be found to be suffering from this disease.

For the year 1942 Indiana was well out in front in the matter of medical enlistments, and for the present no more physicians will be enlisted from our state. However, the statement is officially made that several thousand more physicians will be needed in the coming year or so and, of course, Indiana will be asked to do her share. The quota that may be asked of us will have to be filled by men from the urban centers; the smaller communities can spare no more men. With the setup we have in our state association there need be no anxiety as to future medical care for Hoosiers; our state and county procurement committees will see to it that clearance will be given only to those who can be spared.

The venereal disease problem continues to attract the attention of health authorities, and just now the heads of our larger cities have interested themselves in the problem. A new quarantine hospital has been opened in Indianapolis, and in the first seven weeks of operation listed some nine hundred cases under treatment. Lake County, through the efforts of its executive secretary, Rollen W. Waterson, is seeking an award under the terms of the Lanham Act, asking for seventy thousand dollars to equip a wing for such cases in the new Mount Mercy Sanitarium, at Dyer. Under the present setup, cases that refuse treatment under the plans now in vogue are summarily sent to the county jail until such time as they are deemed no longer dangerous. The new plan will, of course, make it much easier to control these cases and would seem to be the solution of a problem that long has caused considerable trouble.

A letter of appreciation has been received from Mrs. Frank W. Cregor and is being published herewith:

"February 7, 1943.

"Mr. Thomas A. Hendricks, Secretary,
Indiana State Medical Association.
My dear Mr. Hendricks:

"I am sorry that I wasn't at home when you came to bring me the February issue of THE JOURNAL of the Indiana State Medical Association. I was out of town for four days.

"Thank you and the other members of the Bureau of Publicity for the 'In Memoriam' tribute to Doctor Cregor.

"It was written with such an understanding of him and of his efforts that it made me live again many stirring hours from the 1915 session of the Legislature, when as a recent newcomer to Indianapolis I complained repeatedly of his evenings away from home, to his jubilant satisfaction when the injunction clause was written into the Medical Practice Act.

"Many memories are mine of his devotion to the ethics of his profession and to the affairs of the Indiana State Medical Association.

"A slight inaccuracy—Doctor served two sessions in the Senate, in 1899 and 1901. In his safety deposit box I found preserved the paper in which he was 'certified' as a member of the 1899 Senate. These two sessions gave him the invaluable knowledge of procedure which served the association so well in 1927.

"I would appreciate two extra copies of THE JOURNAL that our Mary and John can each have a copy of this heart-warming tribute to their father.

"Thanking you and the Bureau of Publicity for your labor of friendship and respect, I am,

Most appreciatively yours,

GERTRUDE H. CREGOR."

A new clinical laboratory and treatment hospital is proposed for the Veterans' Hospital at Marion, which now has over 15,000 patients.

It has been suggested that doctors *stagger* their *afternoons off*. In recent years most physicians have observed the custom of closing their offices for one afternoon each week, Wednesday seeming to be the most popular day. It might be well for urban physicians to give the matter serious consideration, since so many of our men are in the armed forces.

The annual report of the Indiana University Medical Center, for 1942, carries much interesting information. The Riley, Long and Coleman hospitals admitted 10,632 patients, with a list of 45,000 out-patients. One hundred and seventy-six thousand laboratory examinations were made in the medical center laboratories. It also is announced that 62 members of the faculty and 104 nurses have enlisted in the armed forces. In the research department activities were chiefly limited to matters concerning wartime activities, this on the order of the War Department.

At the risk of being termed a "scissors and paste pot" editor, we again quote from the *Fairmount News:*

"MATCH THIS RECORD

"More than 28,000 physicians volunteered their services without pay to the Selective Service boards. More than 40,000 physicians gave up their careers in civilian practice to serve with the armed forces. The directing board of the Procurement and Assignment Service for Physicians, and its many representatives throughout the nation, served without one cent of remuneration. The hundreds of physicians on the consultant committee of the Division of Medical Science of the National Research Council, and in the Office of Research and Development, contribute time and income without one cent of remuneration. Throughout the nation, thousands of doctors furnish countless services in connection with civilian defense, without one cent of remuneration. It would be interesting to know what other trade or profession can match this record of public service.

"And yet proposals are made to throw American medicine into the political arena, and level it off to the standards prevailing in European countries where experiments in socialized medicine have utterly failed to produce the health records and benefits to the general public which are the rule rather than the exception in the United States. Fortunately for the people of this country, such efforts seem to have failed.

"American medicine is marching ahead unselfishly and scientifically in its determination to maintain for our armed forces and the people at home the highest medical standards in the world—not for this year, or next year, but for every year."

Elkhart physicians have worked out a plan for medical emergencies that might well be adopted by other centers. Following a conference between the mayor of that city and a committee of local physicians, the following rules were adopted, the order being directed to police desk sergeants:

"In the future when doctors are wanted for emergencies, please follow these instructions:

"1. When citizens call for a doctor, ascertain if they have transportation available. If so, tell them to please take the patient to the hospital. If they have no transportation, use the old police ambulance or a squad car to take the patient to the hospital.

"2. If the patient is unable to be removed safely, try to summon a doctor to care for the patient at the origin of the call.

"3. Accidents or emergencies that require use of the first-aid ambulance will be handled as at present.

"4. Patients taken to the hospital will be treated by doctors summoned by the hospital authorities."

Hammond physicians recently received an invitation from a local movie emporium to attend a private showing of a picture; the announcement was as follows:

"You are cordially invited to attend a private showing of a motion picture of great social significance, entitled 'No Greater Sin.' This picture frankly and boldly puts the spotlight on America's sixth column, *Venerable* Disease, which is threatening the health of both our armed forces and industrial workers.

"We feel you will be vitally interested in seeing this picture, which, while it treats of a clinical subject, presents it in an entertaining manner, one that will not offend any man or woman."

Having attained the age where anything pertaining to geriatrics deeply interests us, we had made plans to be right in the front seat for the occasion. Then came another letter, as follows:

"Dear Friend:

"Is our face red! ! ! ! ! !

"Just imagine us trying to invent a new disease when there are so many thousands of them now we'd like to rid the country of.

"In our letter to you, inviting your attendance to a special screening of 'No Greater Sin' at the Paramount Theatre on Wednesday, February 10th, we (and we're still blushing) referred to the film's subject as 'venerable disease.' Of course, we know that you knew we referred to 'venereal disease,' but it was just one of those things. The letter passed through three hands, mind you, and still the mistake escaped us.

"Forgive us, please, and be sure to see the screening; you'll find there are no mistakes in the picture—honest!"

The editorial page of the *Chicago Tribune* carries the following note on "the doctor's pen":

"THE DOCTOR TAKES HIS PEN IN HAND

"The other day our thirst for knowledge led us to a physician's manuscript, as yet unpublished, dealing with an obscure disease. The author provided us with what we venture to say is the choicest example of doctor's English to have been unfurled in 1943. We quote:

" 'In patients who were already ill or who were recovering from the affection, imbibition of liquor often would produce an exacerbation or a relapse, respectively.'

"We doubt that even a sociologist could outdo that sentence, respectively or otherwise."

In our experience as editor of THE JOURNAL we have come across similar phrasing.

Dr. J. T. Oliphant, president-elect of the Indiana State Medical Association, made his first official appearance at the Secretaries' Conference, where he delivered the welcome address, as follows:

"It is a pleasure to greet you. This meeting differs widely from any of the annual conferences which have preceded it.

"You who are gathered here today are but a remnant of the great body of medical men of Indiana. You are the disqualified remnant—the remnant that is physically unfit for the armed services; you are the aged, the lame, and the halt, doomed to stay at home while younger and sturdier men experience the high adventure of war and victory. Yet in spite of your age and your infirmities you have braved the wintry weather to come from almost every county in the state. You have come for the sole purpose of doing your part in upholding the traditions of our profession.

"While our soldiers on far-flung battle fields, scattered all around the world, are fighting for freedom and for that manner of life to which we have been accustomed, you are here today grimly hopeful that a part of that freedom shall be the freedom to practice medicine as we have been accustomed to practicing it.

"The first task confronting every doctor is to aid in winning this war. We are now bending every effort to this task. We are here at this meeting today to learn how to serve better.

"It is a tough war, in the words of President Roosevelt; we are fighting the dictators, and we must be satisfied with nothing short of total victory. We must have freedom. We must have our Bill of Rights and we must have individual liberty. These things are our heritage; they must be preserved for ourselves and for our glorious sons when they come marching home.

"On behalf of the Indiana State Medical Association, I welcome you to this conference!"

Doctor George Baehr, chief of the OCD medical services, offers a merited complaint concerning "medical luxuries," chief of which is the private nurse. In many cases, of course, the constant attention of a nurse is required, but in numerous instances this is considered a luxury and would not be thought of by those with limited means. As we mentioned last month, steps are being taken to have nurses do double and treble duty, that is, to look after two or more patients, which in many instances could be done without sacrificing efficiency. To our notion, the sooner we realize that we are living in a world-war age, such as never before has been known in history, and accept the fact that many of the things to which we so long have been accustomed are no longer available, just that soon will we become properly attuned to present conditions.

ADVOCATE WASHINGTON A.M.A. OFFICE

Program of action on the part of the medical profession in the present war emergency was outlined at the Seventeenth Annual National Conference on Medical Service at a meeting in Chicago, February fourteenth. The conference, which was attended by representatives of more than a score of state medical societies, passed the following resolution:

"WHEREAS social and economic changes have altered the lives of our citizens, and the Federal government has found it necessary to issue directives from time to time, we as physicians believe that it is our duty to take a more active part in the creation of such regulations as affect the practice of medicine.

"THEREFORE, BE IT RESOLVED, that this National Conference on Medical Service go on record as favoring the immediate development of a stronger national economic and legislative policy governing the practice of medicine and that such a policy be integrated with each state and county.

"BE IT FURTHER RESOLVED that the expression of this National Conference on Medical Service be submitted to the Board of Trustees of the American Medical Association, advising them that this resolution, or a similar one, will be submitted to the delegates of the American Medical Association at their next annual meeting."

The conference, which is the outgrowth of the old Northwest Conference, had the largest attendance in its history. Senator Harold H. Burton, of Ohio, was the principal speaker. Indiana was represented on the program by Dr. Carl H. McCaskey, president of the Indiana State Medical Association, who spoke in a symposium on "Medicine in the Post-War Era" on the "Responsibility to the War Veteran."

Among those from Indiana who attended the meeting were: Dr. Lall G. Montgomery, of Muncie; Mr. Rollen Waterson, of Gary; Dr. John Ray Newcomb, of Indianapolis; Dr. Herman M. Baker, of Evansville; Dr. Roscoe L. Sensenich, of South Bend, and Dr. Raymond F. Carmody, of Gary.

President's Page

Rehabilitation of Physicians

In thinking of a program for the rehabilitation of physicians in the armed forces, it becomes quite apparent that it will not be such an easy task as it seems at first thought. I think every one will agree that it is an important problem. What will these men want when the war is over? Will they wish to return to the place they left, or will they wish to seek a different place to practice medicine? Many letters have been received from men in the service, and the tone of the majority of them would indicate that they desire to return to their former location. Some, no doubt, will prefer to change their location owing to the fact that they will have had special training and experience while in the armed forces which will warrant their changing from smaller communities with limited hospital facilities to larger communties with larger hospital facilities.

This rehabilitation task, no doubt, will be assigned to the War Participation Committee. This committee already has in its possession all the facts relative to the dislocation of the men who have gone into the service. All the facts which are essential to the rehabilitation of men now in the armed forces will have been accumulated through this committee. This is, and will be, one of the projects of the Indiana State Medical Association this year.

Decalogue for 1943

Recently, while reading *Nation's Business* for February, I ran across a Decalogue which had been quoted from the *Land of Lakes News*. It appealed to me very much and I am passing it on to you.

"1. You cannot bring about prosperity by discouraging thrift.
2. You cannot strengthen the weak by weakening the strong.
3. You cannot help small men by tearing down big men.
4. You cannot help the poor by destroying the rich.
5. You cannot lift the wage earner by pulling the wage payer down.
6. You cannot keep out of trouble by spending more than your income.
7. You cannot further the brotherhood of man by inciting class hatred.
8. You cannot establish sound security on borrowed money.
9. You cannot build character and courage by taking away a man's initiative and independence.
10. You cannot help men permanently by doing for them what they could and should do for themselves."

J. H. McCarthy

RED CROSS ACTIVITIES AND MEDICINE*

ALBERT McCOWN, M.D.
National Director, Medical and Health Service
American Red Cross
WASHINGTON, D. C.

The relationship of the American Red Cross and Medicine is so obvious that it is unnecessary to deal in argument. The purpose of this paper is narration of activities and exposition of relationships. The American Red Cross is a semi-official, non-political, non-partisan organization with international affiliations. Among the 3,746 chapters in the United States, all of the ninety-two counties of Indiana are represented. Its present membership consists of approximately fifteen million adult members and sixteen million junior members. Its very symbol—a Red Cross on a white background—designates service through doctor, nurse, hospital and welfare worker. Its essential appeal is deep rooted in its millions of members and in the emotions of those whom it has served in disaster or trouble, even if they are not members. Even with this tremendous emotional appeal there is a surprising lack of sound knowledge as to what the over-all objectives of the Red Cross are and how it operates. One of the most frequent questions asked by my professional associates is, "But what do you do?" It is in an attempt to answer this question regarding the relationship to medicine that I appear here today.

DISASTER SERVICE

We believe that the broad program of relief and welfare carried on by the Red Cross in time of disaster represents the Red Cross at its peacetime best. With a background of experience and a national organization used to supplement local aid when disaster strikes, the Red Cross is in a position to operate and cooperate effectively in disasters caused by disease, flood, tornados, earthquakes, fire and belligerent enemy action. During the past year there has been an unprecedented number of natural disasters over the United States in which hundreds of persons have been killed and thousands injured. It is impossible to think of the activities of the Red Cross in these disasters without association with the medical profession, since the medical and surgical care of these disaster victims was accomplished through the members of the medical profession. The immediate objective behind disaster aid is that of meeting emergency needs, be it surgical or medical, the provision of food, shelter, clothing or the replacement of property. We recognize that the primary responsibility in the care of the sick and injured in time of disaster rests with local physicians. Red Cross medical, surgical and disaster relief does not substitute for the service of the local physician and dentist, but cooperates with them in assisting with the organization of the medical and relief work and by providing the facilities which they may lack. Every effort is made to retain and re-establish as quickly as possible the pre-disaster relationship between the physicians and their patients. If emergency hospitals are needed in the first few days, these are closed as soon as practicable so that patients may return to their physicians.

In our relationship with physicians and hospital superintendents regarding compensation for services rendered, we have found such physicians and superintendents most reasonable. In many cases physicians have stated that they expected no compensation and have affirmed their willingness to give their services even if no compensation were available.

In addition to the fine attitude displayed by physicians, a lasting impression of the long series of disasters of the past year is the splendid morale of the victims of these disasters—their ability to "take it." I recall an old woman eighty-eight years old, in an Oklahoma hospital, with a fractured right arm in a cast, whose house had been blown down on her by a tornado. She was smoking a black pipe, holding it in her left hand. When I attempted to sympathize with her she took her pipe out of her mouth and said emphatically, "Don't sympathize with me, at least them Japs didn't do it."

FIRST AID

All of you are familiar with the activities of the local chapters of the American Red Cross in conducting first-aid classes. Of the 152,584 instructors giving these classes in the United States, twelve per cent are physicians. While others must take forty-five hours of instruction and demonstration before acting as instructors, physicians may be appointed without taking such courses.

In order to keep the material of instruction up to date, the medical content of the course is at present being reviewed by the Surgical Committee of the National Research Council, which will make recommendations for its revision. It is hoped that this revision will meet the objections raised by certain physicians concerning some of the material in the present first-aid textbook.

BLOOD DONOR PROGRAM

Because of the dramatic success resulting from the use of blood plasma to combat shock, both in

* Presented before the Secretaries' Conference of the Indiana State Medical Association at Indianapolis on January 24, 1943.

domestic accidents and in war casualties, the Army and Navy have asked the American Red Cross to procure 4,000,000 pints of blood during 1943. This amount is more than three times the amount (1,300,000 pints) obtained from volunteer donors at Red Cross centers during 1942. At present blood is being collected at thirty-one fixed centers and twenty-nine mobile units at the rate of approximately 50,000 pints a week. Such a program is possible only through the technical assistance and professional backing of the medical profession.

Time does not permit a detailed discussion of the many other services of the Red Cross in which the medical profession participates, either by counsel or through direct service. Mention should be made, however, of services to the armed forces, the Nursing Service with its widespread campaign of nurse recruitment, the Home Nursing Service, the Volunteer Nurses' Aides, Volunteer Motor Corps, Canteen Corps and Gray Ladies. The medical profession is aware, I am sure, of the thousands of women all over the land who have made the millions of surgical dressings for domestic and foreign use.

As indicative of the health education activity of the American Red Cross, I would like to point out the tremendous backlog of trained persons who have received health instruction. If this instruction is sound and the person trained is motivated to action, this force can become a real factor in raising the health standards of the country. Constituting this backlog are the following:

1. Over 6,000,000 who have been certified in First Aid.
2. Five hundred thousand in Home Nursing, with a goal for next year of 1,000,000.
3. Approximately 50,000 as Volunteer Nurses' Aides.
4. Two hundred thousand in Nutrition.

The value of this training to the approximately 7,000,000 who have been trained by the Red Cross depends on the following factors:

(a) The soundness of material of instruction. It is in this field that the medical profession renders a great service through advice on the sort of material given and through service as instructors.

(b) The methods of instruction.

(c) The ability of the persons instructed to assimilate instruction and use it as education.

STAFF

The medical and health staff of the American Red Cross consists of a director and assistant director at national headquarters and contemplates directors of medical and health services in each of its four areas. Medical directors are now serving in the Pacific Area in San Francisco, the North Atlantic Area in New York, and by February fifteenth of this year directors will have assumed their duties in the Eastern Area with headquarters in Alexandria, Virginia, and the Midwestern Area with headquarters in St. Louis. In the latter area, the Midwestern, we felt fortunate in obtaining the services of one of your colleagues, Dr. Howard Mettel. We respected his professional ability, and by his personality and integrity he endeared himself to all of us. For these reasons his death on November thirtieth came to us as a deep personal loss.

Another Hoosier, Dr. Herman Baker, serves on our National Medical and Health Advisory Committee, and in him we feel that we have an able representative of the medical profession.

In this brief review I have attempted to summarize the medical and health activities of the American Red Cross and to outline the relationship of these activities to the medical profession. In brief, we count on you not only for help through counsel, but for assistance through service. On you, the medical profession, we depend for this service in disaster and in our other activities, and on you we shall depend for whatever medical rehabilitation problems the American Red Cross will face in the post-war world.

ABSTRACT

FIND NEW TREATMENT FOR BURNS SAVED THIRTY OUT OF THIRTY-TWO PATIENTS

Treatment employing 2.5 per cent sulfadiazine, a member of the sulfanilamide family of drugs, in 8 per cent triethanolamine, an emulsifying agent and solvent useful for applying certain medicaments to the skin, was found to be valuable in 30 of 32 patients with second and third degree burns, Milton Rothman, M.D.; Joseph Tamerin, M.D., and Jesse G. M. Bullowa, M.D., New York, report in *The Journal of the American Medical Association* for November 14. The area burned varied from 12 to 45 per cent of the body surface. This recovery rate is very high in view of the severity and extensiveness of the burns. The treatment they used is a modification of one reported last year by K. L. Pickrell, M.D., at Johns Hopkins Hospital.

The solution was applied by spraying on the surface of the burn every hour on the first day, every two hours on the second day, every three hours on the third day and every four hours on the fourth day. The wound was dried by fanning or with warm air after each application. A translucent scab formed in twenty-four to thirty-six hours and alleviated pain and the need of frequent dressings. There were no reactions from the sulfadiazine and the solution may be employed without irritation or constriction about the face, mouth, eyes, joints and fingers.

ONE IN ONE HUNDRED AND TWELVE

JOHN RAY NEWCOMB, M.D.

Chairman of the Marion County Procurement and Assignment Committee
and Vice-Chairman of the War Participation Committee

INDIANAPOLIS

Questionnaires were sent to all members of the Indianapolis Medical Society who are on duty with the armed forces, and it is the purpose of this article to briefly review the answers which have been received. One hundred and seventy questionnaires were sent out, and one hundred anl twelve answers have been received. Dr. C. H. McCaskey, president of the Indiana State Medical Association, sent these inquiries to the medical officers, hoping that sufficient information would be received to make possible an analysis of the individual physician's adjustment in going from civil practice to military medical officership.

In reply to the first question, "What type of medical or surgical work are you doing at the present time?" there was but one answer indicative of dissatisfaction. However, this physician's mental attitude, as expressed in his answers, most certainly decreases the evaluation of his dissatisfaction. In striking contrast to this physician's apparent maladjustment the following letter is quoted:

> "Withhold hasty and emotional judgment as to the policies of the Medical Department in assigning doctors to the various assignments required in a military organization that differ from the civilian practice of medicine. It has been my observation that there is a very real effort to get medical men into the field most closely approximating their civilian background, but the requirements of warfare are so much more in the direction of public health, sanitary inspections and similar assignments that there is a certain amount of dislocation inevitable. As to administrative work required of doctors, it is my opinion that this is being held to the irreducible minimum, and that whenever a doctor is in such a capacity the position is one in which we, as doctors, would not care to work under a layman."

Further comment is unnecessary. All of the medical officers from Marion County, with the one exception mentioned, have apparently adjusted themselves to military needs and are taking existing situations in their stride.

Of particular interest are the answers to the query, "What can the state association do to help the men in the armed forces?" Over one-third of the answers received expressed appreciation of the receipt of THE JOURNAL of the Indiana State Medical Association and *The Bulletin of The Indianapolis Medical Society,* or requested that these publications be sent to them. One Lieutenant Colonel writes, "In this far distant and foreign land just any word in English and from home is most welcome. We appreciate particularly current journals and periodicals which might keep us up to date on developments, both in medical and surgical practice and in the local situation in general. The holiday greeting from Dr. McCaskey, one of the few received from home, was especially thrilling after being out of touch with friends for so long a time." Another wrote, "Continue sending THE JOURNAL each month and try to have plenty of items in the 'News Notes' column. THE JOURNAL always brightens up an otherwise usual routine day." A third physician says, "Thanks for the '43 membership card in the state association. Very gracious and thoughtful of you. But, why do you need to do more? Hell's Bells—don't pamper us." A Naval officer says, "I believe that the State Journal would be read with a great deal more interest by the men in the service than when they were at home." A very sincere effort is being made by the officers of THE JOURNAL of the Indiana State Medical Association and *The Bulletin of the Indianapolis Medical Society* to get their publications to every doctor in the service. Failure to receive them is due to lack of address or a change in station.

Two other suggestions may be discussed in one paragraph, for they are similar in purpose. Several men request that the state and local societies do everything to keep refugee physicians from coming into the state. Another request is that socialized medicine be fought vigorously. Both of these suggestions can be answered by saying that the state and local organizations and the men who are left at home will do everything in their power to protect the interests of the men who are in service. We are on guard and hope to have everything "under control" when the officers return to resume their practice.

Plans for the rehabilitation of medical officers after the war have been requested by a number of the officers. This matter is receiving serious consideration and it is hoped that the societies may be in such an adequate state of preparedness that the rehabilitation of medical officers may be readily accomplished. Just how much rehabilitation may be necessary depends entirely upon how good a fight the societies carry on during the duration of the war. Whatever situation meets you when you return, we, the societies, may be held responsible.

Approximately one-fifth of the officers suggest that the state organization supply them with a list, giving the location of other medical officers. This is rather difficult because of the frequent changes in station, but steps have been taken to supply that in-

formation in THE JOURNAL at as early a date as possible. In case you wish to communicate with an officer whose address is unknown to you, you can write his full name on the envelope followed by M.C., A.U.S., care of The Adjutant General's Office, Washington, D. C., and in the lower left hand corner write, "Please Forward." The delivery of the letter may be somewhat delayed, but it will be delivered.

One officer suggests that all physicians maintain their loyalty to their societies, their hospitals and the medical association members. Automatically this loyalty increases in times of stress, and it is a safe conjecture that every physician is more loyal now than he was before war was declared.

"God and the doctor
We alike adore.
On the brink of danger,
Not before.
The danger past,
Both alike are requited.
God is forgot
And the doctor slighted."

In time of war when there is real danger our loyalty to medical societies, hospitals and confreres becomes greater.

Another suggestion is that the medical society contact medical officers' families and check up on their health and welfare. That would be a task of considerable proportion, and the suggestion is made that each medical officer advise his family to get in touch with the President of the Indianapolis Medical Society in case they need assistance of any kind whatever. They will be taken care of promptly and adequately.

Other officers ask the state association to encourage correspondence between physicians in service and those who are left behind. The answer to this is that you write a letter and you will receive one in return. Any suggestions by the state association would be negative in results, whereas if each of you write a letter there is a ninety per cent chance that you will receive one in return.

A request is made that the state association provide opportunities for advanced studies, fellowships, for returned medical officers in order that they may refresh themselves before re-entering practice. This suggestion has been forwarded to the University School of Medicine, and the response will be published as soon as possible. There is no reason why refresher courses and advanced courses should not be available to the medical officer when he returns.

Another suggestion that the state medical association investigate a new service to civil service employes, which grants them free medical service by Army doctors, is very timely. The civilian population gave up its family doctors to care for the men in the armed forces, and it would indeed be indignant were these physicians imposed upon in the manner indicated by this suggestion. This suggestion should be passed on to the national organization and, if necessary, the civilian population should be advised of this rank imposition on the medical officers.

Other officers complain of the fact that medical officers are expected to pay income taxes and ask the medical association to see what can be done. The answer is that nothing can be done. This same subject was a thorn in the flesh during the Baby World War, but we were advised that we could pay our income taxes—and we paid them. Senators and congressmen do not pay income taxes, so it is necessary for medical officers to pay in order to make up for the deficit.

Another letter is quoted in full. It may not apply to Indianapolis at the present time, but it might in the future.

"I'm in no postion to inform you of additional things that the association can do for our members in the armed forces. If you have been as successful in seeing to it that each received THE JOURNAL regularly, as you have in my case, that is a great accomplishment.

"In regard to the needs of men in the armed forces in general, however, there is one situation existing here that I think worth while for the doctors of Indiana to find out about if the same is occurring there. The soldiers and officers who arrive in San Antonio have no great personal worries regarding accommodations, but families and friends often find nothing but benches in the railroad stations on which to spend the first night. It is not due to lack of machinery set up in U.S.O., Y.M.C.A., et cetera. It is not due to these individuals being unable to pay. It is due to the lack of rooms to which these travelers may be sent. In normal times the traveling public supports an enormous business in San Antonio, but now the hotels, tourist courts, rooming houses, et cetera, are taxed beyond capacity, and the number to be accommodated will increase because training centers are enlarging and more and more organizations will be moved into places of training. Therefore, a room in a private home in which a cadet's mother may be placed on graduation day or an officer's wife can rest until an apartment may be found or a soldier's father may hang his hat before the long train pulls out for the east or west coast is going to be appreciated more and more.

"It might be said that these folks should remain at home, but each of us know what we would do if we had a son or husband in the Army or Navy. We would do it under the authority of morale building among the civilians and the armed forces. I know that there are many rooms formerly occupied by sons and daughters of Indiana physicians to which such people are more than welcome if the need for them exists and it is known. They are welcome in spite of the risk of an occasional undesirable. Hoosiers have appreciated open doors in Texas, and I know that persons all over the

U.S.A. will appreciate open doors in Indiana if there are not enough hotel rooms.

"My life in the Army has been very protected, and I can ask for nothing other than the continued coordination among those in and those out, so that this effort can be victoriously executed with as high a percentage of our men returning home as possible."

Doctor McCaskey sent these questionnaires to the members of the Indianapolis Medical Society because of its large number of members who are in service, and he felt that it might be extended to every man in the state who is in service if the answers warranted the effort of sending the queries. After reading these one hundred and twelve answers, the recommendation is strongly made that this be made a state-wide effort and that other states be advised of the results obtained.

It has been an inspiration to read these returned questionnaires, and you may well be proud of the medical profession when you know that one hundred and eleven of these men have readjusted their lives and are doing their duty with enthusiasm, and that only one in one hundred and twelve has not been able to readjust.

Gentlemen, we salute you! !

CIVILIAN PHYSICIANS AND THE SOLDIER

N. R. BOOHER
Major, Medical Corps,
Director of Medical Division and Commanding Officer,
Station Hospital,
FORT BENJAMIN HARRISON, INDIANA

I have had multiple requests from our colleagues in private practice on the subject of what a civilian doctor should do when a soldier or other personnel in the military service presents himself for medical treatment. Since I have had so many requests and I find that other medical officers are being asked the same question, I thought it was of sufficient interest, perhaps, to the state profession to gave you some information which might be disseminated in the Bulletin or other publication if you see fit.

We are quite familiar with two types of soldier patients. One is the individual who has been told that the Medical Corps of the Army, Navy, et cetera, is a slap-happy impersonal outfit and knows nothing but CC pills and iodine. He does not wait to find out for himself if this is still true, if it ever was, but hies himself to the nearest civilian physician for treatment for any ills he may think he has. The other outstanding example is the man with contagious disease, particularly venereal disease. In spite of the fact that we attempt to inform all soldiers accurately on venereal disease in its entirety, many soldiers still believe that if they report a venereal disease they will be courtmartialed. This is no longer the case. The only penalties involved in venereal disease for the soldier under current regulations are in cases where the soldier fails to report for treatment as soon as he knows something of the sort is wrong with him. Of course, all venereal disease is out of line of duty, and he does not receive pay for the time he is off duty because of venereal disease. There is also a third class which to us is a serious problem, and that is the soldier that has decided for some reason or other that he wants to get out of certain military duties or out of the Army, either because he does not like the Army or he can obtain lucrative employment outside if he can obtain his discharge. This individual has presented himself many times to Army doctors, and they have placed him on limited service or they decide he is a malingerer and send him back to full duty. Many times these individuals will go to a civilian physician and present their story in a considerably different light and obtain evidence of sorts from the civilian physician as to disabilities which do not give a true picture. Normally such evidence is investigated but does not carry any official weight in decisions regarding military personnel.

While there are no legal complications that may arise with the military personnel as far as the civilian physician is concerned, he may be placed in an embarrassing situation by a soldier involving him in difficulty with military authorities. Of course, it is necessary for dependents of soldiers, such as wives, children, fathers and mothers, to seek medical care from civilian physicians in time of war for ailments that cannot be treated on an out-patient basis in military hospitals. The only service that most Army hospitals try to render to dependents in wartime is out-patient service, for we are unable to hospitalize such personnel in addition to the heavy burden of hospitalizing military personnel itself.

I am quoting in part from Army Regulations 40-505, paragraphs 7 and 8, on this subject. While it does not have direct bearing on the question of whether or not civilian doctors should treat soldiers, it does give considerable information to civilian doctors and does explain to a large extent why the Army definitely does not want soldiers to go to civilian doctors for medical treatment.

"7. *Civilian physicians practicing upon military*

reservations, posts, or camps.—Regularly-licensed civilian physicians may be authorized by the commanding officer to practice medicine upon military reservations, posts, or camps, other than as prescribed in paragraph 3, under the following regulations:

a. The civilian physician will, before entering upon such practice, register over his signature with the commanding officer his name, address, fact of state licensure, agreement to ascertain and observe current rules and regulations relative to the protection of the command against communicable diseases, and his agreement to conform to the established ethics of the civil medical profession. Until such agreement has been made he will not, except in case of emergency, be allowed to practice within the station or command.

b. When a civilian physician in his practice within a military reservation, post, or camp discovers a case of disease which is or may be communicable, he will promptly report the facts to the commanding officer, who will advise the surgeon and take proper measures for the protection of the command and of other persons.

c. When a civilian physician is summoned to treat a patient belonging to or present with any command, the patient or the person acting in his or her behalf will at the same time inform the commanding officer, who will notify the surgeon that a civilian physician has been summoned. The surgeon will thereupon ascertain from civilian physician, or by personal examination of the patient if deemed necessary, the nature of the disease and whether it is communicable or is a source of danger to others. In the event that the disease is communicable, or is considered by the surgeon to be a source of danger to others, the surgeon will so inform the commanding officer, and will exercise such supervision over the case as he may deem necessary to prevent its spread.

d. If the patient is an officer, Army nurse, warrant officer, or an enlisted man, the civilian physician or the patient, in case the medical attendance is obtained other than as provided in this paragraph or in paragraph 3a, will report the diagnosis of the disease or injury and the attending circumstances to the commanding officer who will transmit the information to the surgeon—

(1) To enable the Medical Department to have knowledge of communicable diseases for which the patient might consult the civilian physician;

(2) To complete the health records of the individual in the sick and wounded records;

(3) To carry out the scheme of health conservation prescribed in AR 605-110;

(4) To have the information available for promotion and retirement boards;

and the patient will not be relieved from the consequences of a failure to report such diagnosis unless he states that the same would tend to incriminate him.

e. Violation of these regulations by a civilian resident or by a civilian physician will render him liable to exclusion from the military reservation, post, or camp, and by any member of the military forces to appropriate disciplinary action.

f. Each civilian physician registered to practice within a military reservation, post, or camp will be furnished with a copy of these regulations and also with a copy of any other rules and regulations in force relative to the protection of the command against communicable disease.

"8. *Private practice by medical officers.*—If a citizen residing in the neighborhood of a military station or the residence of an Army medical officer desires the professional services of such officer, and the services of a private practitioner acceptable to him cannot conveniently be obtained, it is regarded as not inconsistent with the regulations governing the Army for such officer to tender his services when this does not interfere with the proper performance of his official duties. Private or civil practice by Army medical officers in civilian communities, the needs of which are being satisfactorily met by civilian practitioners, will ordinarily be restricted to consultation practice with such civilian practitioners, and to emergency medical or surgical work necessary to save life or limb or prevent great suffering for which civilian practitioners are not immediately available. The establishment by a medical officer of an office for the purpose of engaging in civil practice is prohibited."

I hope that the above information will assist members of the profession who have had this difficulty arise. I might add that in the event a soldier is reported to military authorities as being sick, the military authorities are under obligation to return this soldier to military control with the least possible delay and are authorized, if necessary, to obtain a writ of habeas corpus through the United States Marshal to insure that the soldier is returned promptly to military control. For their own protection it is best, in our opinion, for any civilian doctor not to treat soldiers except in emergencies, and then to report the illness of the soldier to the nearest military post or the Commanding General, Fifth Service Command, Fort Hayes, Ohio, who will see that a military hospital is notified.

SURE TEST

"Halt! Who goes there?"

"American."

"Advance and recite the second verse of 'The Star-Spangled Banner'."

"I don't know it."

"Proceed, American!"

—*Link Belt News.*

An old woman climbed wearily into a London bus, dropping and retrieving parcels, finally collapsing into her seat as she remarked indignantly: "I do wish that there 'Itler would marry and settle down."

—*Reader's Digest.*

THE VICTORY TAX

ALBERT STUMP
INDIANAPOLIS

The victory tax is a tax of five per cent upon "the victory tax net income." The computation of the victory tax net income requires that expenses, interest, taxes and other items of deductions, as provided for in the net income tax, be given consideration. These deductible items are all set out in the Victory Tax Act and the regular Income Tax Act. There is a specific exemption of $624.00.

After the base upon which the tax is to be computed has been ascertained by deducting from the gross income the amounts allowable, then the final tax to be paid requires a consideration of the credits allowed. There are credits allowed for life insurance premiums, for the payment of debts, and for purchase of obligations of the United States. But the total amount of credit cannot exceed the amount of the post-war credit or refund allowed under the Act.

The post-war credit or refund provisions of the Act allow for a single person a credit on income taxes payable after the war in the amount of twenty-five per cent of the victory tax, or $500.00, whichever is the lesser; for the head of a family forty per cent of the victory tax, or $1,000.00, whichever is the lesser; and for each dependent two per cent of the tax, or $100.00, whichever is the lesser. If the marital status changes, then these credits are apportioned. If the amount of the credit on income tax payable after the war does not exhaust the amount to which the taxpayer is entitled, the balance is paid as a refund in cash.

Each individual must make a return if he has an income in excess of $624.00.

Employers shall withhold the amount of the tax on the income, after deduction from the income of the withholding deduction which covers the $624.00 and is apportionable to payroll periods of from one week up to one year. That withholding may be made, however, upon a table contained in the Act. The withholding provisions make the employer liable for the tax in event the employe fails to pay the tax on the wages. The term "wages" means any remuneration except that paid to a public official, to members of military and naval forces, to agricultural labor, to domestic help in a private home, to casual labor, to services as an employe of a non-resident alien, to services as an employe of a foreign government, to services performed by an employe outside of the United States, unless the major part is performed within the United States.

The exemptions and credits are subject to such limitations and conditions as make it impossible to give a complete analysis of the entire Victory Tax Law without presenting practically the entire text of the Act. That would make this article too long. There are eight and one-half pages of the text. In the making of the returns under this Act, the taxpayer should have the text of the Act and of regulations adopted under it before him and follow them carefully; or he should present the data to his tax attorney for the purpose of arriving at the accurate basis upon which the tax would be levied and of claiming the proper credits and deductions.

ABSTRACT: FIND SEX AMONG LOWER ANIMALS CAN BE SCIENTIFICALLY PREDETERMINED BY MAN

Commenting on recent statements of John W. Gowen and Ronald H. Nelson that "in the sense of establishing means for sex control through specific agencies under man's guidance, the problem of the predetermination of sex may be said to be solved," *The Journal of the American Medical Association* observes in an editorial in its January 30 issue that "This startling discovery does not of course signify that it will be possible in the foreseeable future for parents to choose in advance the sex of their children. But it does establish for the first time on a scientific basis the fact that this can be done experimentally among lower animals by man-devised methods."

The work on which the sex differentiation statement was based concerned investigations in which the sex of the offspring of a species of fly known as Drisophila melanogaster was completely controlled so that 100 per cent males or 100 per cent females could be produced at will. A report on some of these studies was published recently in *Science*.

Discussing the predetermination of sex, *The Journal* explains that "From earliest antiquity scientists, philosophers and magicians have speculated as to why the offspring is male or female. Biologists have attempted to discover means by which the desired sex could be produced at will. Only with the advent of this century, however, has any scientific foundation for this eventuality been developed. Among the most important early observations was the demonstration that sex among higher animals is determined by genes. Thereafter it became clear that sex is determined in human beings (as in some lower animals) at the time of the fertilization of the egg. Subsequent activity, whether dietary or metabolic, does not change the sex of the child. Furthermore, to the astonishment and possibly to the distress of some of those with preconceived ideas, human sex is determined by the presence or absence of a particular gene or set of genes of the father rather than by the mother. No longer may the wife be blamed for failure to produce the wished for son!"

PHYSICIAN'S PART IN FOOD RATIONING

JAMES D. STRICKLAND
State Director of the Indiana Office of Price Administration
INDIANAPOLIS

The government has gone far out of its way in every instance of rationing to give the medical profession as much freedom as possible. In return the medical profession, by and large, has shown its appreciation by hewing to the line of regulations. This has been true in the rationing of tires, of gasoline and of automobiles. It has been true in the rationing of coffee and sugar, and I am confident that it will be true in the administration of point rationing.

In every line of business or profession, however, there are a few who make all look bad. They think that it is smart, both from the business standpoint and from the standpoint of personal behavior, to use their privileges in a tricky manner. We have had specific reports of this occurring in the medical profession. We have a report, for example, of a physician issuing an order which enabled a diabetic to purchase five pounds of sugar. We in the Office of Price Administration are not educated in medicine, and we can not say point blank that such an order is ridiculous and contrary to all accepted medical beliefs in the treatment of a diabetic patient. Doubtless, we could go to court and obtain sufficient evidence in the form of sworn medical testimony to make a case, but such action would bring unfavorable publicity to the entire profession. The public is not particularly discriminating when it hears or reads of law violators; the readers have a tendency to confuse the innocent with the guilty.

Back in prohibition days the bootlegger was somewhat of a hero in the minds of many people who believed the law to be ridiculous and unfair. As the food situation becomes more acute—and we know that it will become more acute—the food chiseler will be no hero. He will be in deep disgrace.

The medical profession can help us tremendously by keeping their own house in order when point rationing goes into effect. In this program, as in preceding programs, the physician is given No. 1 priority. If a patient needs special foods in his diet, the physician may prescribe foods and the patient may obtain additional points from his War Ration Board to obtain such food on the physician's prescription. Nothing could be fairer and nothing would be more distressing than to see these regulations violated, or even slightly abused.

We are in no sense urging members of the medical profession to become snoopers among their colleagues. We appreciate the problems of medical ethics, and we appreciate the fact that every patient is an individual problem in the matter of diet. For that reason the Office of Price Administration faces a tremendous task in trying to enforce the regulations that apply to diet.

We believe, however, that we can depend on the vast majority of licensed physicians to live up to the high ethics and high ideals which their education has instilled in them. In these serious times there is a third "high" to be added to ethics and ideals. That is "high patriotism." The medical profession, we are confident, will do its part and more.

ABSTRACT: A CASE OF LEAD ARSENATE POISONING WITH RECOVERY

A case of chronic lead arsenate poisoning occurring in a Michigan fruit farmer who had used this substance as a spray in orchards and vineyards over a period of thirty years is reported in *The Journal of the American Medical Association* for December 5 by Herbert H. Kilgore, M.D., and Paul S. Rhoads, M.D., Chicago.

"In retrospect," the two physicians say, "the patient recalled that as long as five years before he had attacks of nausea and a quivering sensation of his muscles which kept him awake and restless at night but did not bother him while he was working. These symptoms were most noticeable the night following the use of the spray and decreased in intensity each night until the spray was again used, at which time there was an exacerbation of the symptoms. For two years he had had conjunctivitis, photophobia and blepharitis each time he used the spray. . . ."

Seven months prior to the time the two Chicago physicians saw him, the patient noticed that his hands were cold and that numbness extended over the ends of his fingers. A month later the numbness extended over all of his hands and started in his feet. Herpes zoster developed. Vomiting became a prominent symptom and persisted for four weeks. He lost weight and his skin started to scale freely. Later numbness extended to his waist and involved his tongue and lips. He became so weak he could no longer stand or even raise his head.

Laboratory analysis of his urine, hair and nails revealed arsenic trioxide. Treatment included intensive vitamin therapy, especially with reference to the vitamin B group, as well as physical therapy in the form of heat and massage. Seven weeks after treatment had been started, a chemical analysis revealed a considerable reduction of the arsenic trioxide content of his hair and nails and he had gained 25 pounds. He was released from the hospital to continue his convalescence at home and three weeks later he wrote that he was walking about his farm as he desired and still gaining weight and strength.

"Because of the improvement seen in this patient the prognosis for a good recovery seems favorable," Drs. Kilgore and Rhoads say.

Medicine Today

LABORATORY NOTES

This is the second of a series of short notes in which will be outlined various aspects of the use of laboratory tests. The increasing burden of medical practice makes it desirable to use all possible means to facilitate the care of patients, and the use of laboratory aids to diagnosis and management of cases may often save time if the tests are carefully chosen to suit the needs of the moment. These notes are obviously not more than suggestions. They are not intended to supplant either the use of textbooks or the consultation and advice of the pathologist. However, it is hoped that they may be useful as reminders, and that they may in this way help the physicians of the state in their work and save a few minutes of their precious time.

USEFUL LABORATORY TESTS IN THE MANAGEMENT OF CASES OF UNCONSCIOUSNESS

A. *Tests of Primary Importance*
1. Blood chemistry:
   a. Alcohol.
   b. Glucose.
   c. Urea nitrogen.
2. Urinalysis.
3. Cerebrospinal fluid examination.
4. Serologic test for syphilis.

B. *Additional useful tests*
1. Blood counts.
2. Plasma carbon dioxide combining power.
3. Toxicologic tests.
4. Friedman test.

DISCUSSION

A. *Tests of Primary Importance*

1. *Blood chemistry:*

a. *Blood alcohol. Approximate range of values:—*

level of intoxication: above 0.15 milligrams per 100 cc. of blood.

level of coma: above 0.36 milligrams per 100 cc. of blood.

Alcoholic intoxication is the most common cause of loss of consciousness, but the fact that the breath smells of alcohol is not proof of intoxication.

b. *Blood glucose. Range of normal values:* 70 to 120 milligrams per 100 cc. of blood.

The blood sugar level will be elevated in diabetic coma, and it will be depressed in insulin shock and in other forms of hypoglycemia.

c. *Blood urea nitrogen. Range of normal values:* 10 to 20 milligrams per 100 cc. of blood.

The blood urea nitrogen level will be elevated in uremic coma.

2. *Urinalysis.*

An examination of the urine will usually reveal the presence of reducing bodies in cases of diabetic coma, and ketone bodies will usually be present in acidosis. If coma is due to renal disease the urine is usually frankly abnormal, with albumin, casts, leukocytes, and erythrocytes, or a fixed low specific gravity. In alcoholic intoxication the urine alcohol level is almost as useful as the blood alcohol.

3. *Cerebrospinal fluid examination.*

A number of important causes of unconsciousness are associated with changes in the cerebrospinal fluid, and the advisability of making this examination should always be considered. In practically all kinds of meningitis the findings are diagnostic, and in most cases of encephalitis and poliomyelitis the cerebrospinal fluid examination will be helpful. In cases of intracranial hemorrhage the spinal fluid is frequently abnormal and sometimes changes may be produced by intracranial tumors. The diagnosis of central nervous system lues rests almost entirely on cerebrospinal fluid findings. In alcoholic intoxication the spinal fluid alcohol level is even more significant than the blood level.

4. *Serologic test for syphilis.*

A positive blood test for syphilis in a case of unconsciousness will naturally suggest syphilis as a possible basis for the condition and will further suggest the desirability of making an examination of the cerebrospinal fluid. The presence of a negative blood test for syphilis is not, however, sufficient evidence on which to rule out central nervous system syphilis as a possible cause of unconsciousness.

B. *Additional Useful Tests.*

1. *Blood counts. Normal range of erythrocytes: 4 to 5 million per cu. mm. of blood. Normal range of leukocytes: 5 to 9 thousand per cu. mm. of blood.*

In cases of unconsciousness in which there has been hemorrhage or in which anemia is present from some other cause the red cell count is a useful means of determining the degree of anemia. In cases of suspected hemorrhage serial blood counts are helpful in following the progress of the case.

Leukocyte counts will often aid in identifying the possible presence and severity of acute inflammatory disease, and it is well to remember that the differential leukocyte count is an important part of this examination. A series of leukocyte counts is often the best means of following the course of an acute

infection, and a progressive rise in the total number of leukocytes is a useful index of the severity of a hemorrhage.

2. *Plasma carbon dioxide combining power. Range of normal values: 50 to 75 volumes per 100 c.c. of plasma.*

   The estimation of the plasma carbon dioxide combining power is the best means of detecting the presence and severity of acidosis which may be found in several clinical types of unconsciousness. The use of this test is also a good guide to the therapy of acidosis.

3. *Toxicologic tests.*

   Many other poisons besides alcohol will cause unconsciousness and if facilities are available for testing for these poisons they should be used in suspected cases. Carbon monoxide may be detected in the blood, and the gastric contents may be examined for a large number of poisons including alcohol.

4. *Friedman test.*

   Pregnancy may be complicated by unconsciousness from several causes, and it may be necessary to use the Friedman test to identify the presence of pregnancy. However, it is well to recall that this test is usually not positive till the second month after conception, and it is negative in about half of the cases of ectopic pregnancy.

UNDER THE CAPITOL DOME

STUDY OF INSTITUTIONAL ADMISSIONS

The number of persons admitted last year to the state's penal, benevolent, and correctional institutions was more than 239 per cent greater than the number admitted in 1917, a quarter of a century ago, it is shown by the annual report of the Department of Public Welfare just released by Thurman A. Gottschalk, administrator.

Last year 19,062 persons were admitted to the twenty-two institutions which Indiana maintains to care for the shipwrecks of its modern society. In 1917 the number admitted to the then twenty-one institutions was only 8,145. During the quarter century period the peak of new admissions came in 1941 when 20,017 persons entered the institutions for the first time.

The largest increase came in the group of homes, hospitals and schools, which includes the Indiana State Soldier's Home Hospital at Lafayette; the Indiana Sailors' and Soldiers' Children's Home at Knightstown, the Indiana State Sanatorium at Rockville, the new Southern Indiana Tuberculosis Hospital, the Indiana University Hospitals, the State School for the Blind, and the State School for the Deaf. The new admissions for this group jumped from 2,558 in 1917 to 11,455 last year, an increase of approximately 447 per cent. Within this group the Indiana University Hospitals accounted for practically all of the increase; in fact, there was a decrease in the number of new admissions to the Soldier's Home, and practically no difference in admissions to the other institutions comprising this group. In 1917, 1,853 persons were admitted to the Indiana University Hospitals, whereas in 1942 admissions totaled 10,718.

For the state's seven penal institutions the increase in new admissions was about 125 per cent between the 1917 and 1942 figures. There were 4,254 men, women and children committed to these institutions in 1917, and the commitments had increased to 5,334 last year, but the 1942 commitments did not by any means represent the peak. Earlier years in which commitments were greater than 1942 were 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1934, 1935, 1936, 1937, 1938, 1939, 1940, and 1941. The peak year was 1931, with 8,984.

Institutions included in the penal group are the state prison at Michigan City, the reformatory at Pendleton, the woman's prison (penal department), the state farm at Putnamville, the woman's prison (correctional department), the boys' school at Plainfield, and the girls' school at Clermont.

New admissions to the state hospitals for care of mental cases have shown a fairly even increase from the 1,333 in 1917 to the 2,273 in 1942. New admissions at the institutions last year were: Central, 546; Evansville, 359; Logansport, 439; Madison, 271; Richmond, 346; Fort Wayne State School, 119; Muscatatuck State School, 100; and the Village for Epileptics, 93. In 1917 admissions for these same institutions were: Central, 237; Evansville, 166; Logansport, 280; Madison, 292; Richmond, 146; Fort Wayne, 120, and the Epileptic Village, 92.

The population of the state institutions, between the present period and the one a quarter of a century ago, has increased approximately 159 per cent. Population for 1942 was 21,260 as compared to 13,355 in 1917. The institutions for mental cases had a population in 1942 of 12,937, while at the earlier date they had 7,060. Although there was a certain amount of fluctuation during the period, the increase has been steady, and the peak year was 1942. The population for the mental institutions passed the 12,000 mark in 1940, although in 1939 it was only 62 under 12,000.

The population of the Muscatatuck State School, which started in 1921 with 80, passed the 1,000 mark in 1941 and in 1942 was 1,222. The Village for Epileptics has shown a steady growth starting with 337 in 1917 and progressing upward to 983 last year, although the peak was in 1941, with 993.

The fire which destroyed the Evansville State Hospital, of course, creates a capacity problem at the remaining hospitals for mental cases. They already were operating at or over capacity, and the additional patients unexpectedly placed in their custody increased their problem, but officials all around undertook the new problem with energy and expect to manage until a solution is reached.

WHAT WENT ON DURING WORLD WAR I

(Items from THE JOURNAL of March, 1918.)

Six scientific articles were contributed to this number of THE JOURNAL; Goethe Link, Indianapolis, wrote on "Appendicitis"; John W. Sluss, Indianapolis, on "Tuberculosis of the Cecum"; B. F. Kuhn, Elkhart, on "The Surgical Treatment of Uterine Displacements"; Charles A. Sellers, Hartford City, on "Infections of the Urinary Tract in Infants and Younger Children, Due to the Bacillus Coli Communis"; and L. D. Brose, Evansville, on "Ocular Tuberculosis."

The editor was somewhat brief in his editorial comments, discussing lues of the new-born and botulism.

The editor commented on the published statements that lawyers had raised their fees from 25 to 100 per cent due to changed conditions in wartime, opining that it was high time that medical men upped their charges.

Announcement was made through the proper channels that physicians having alcohol in their possession prior to September 9, 1917, would not have to obtain a Federal permit to use it. However, those who had none on hand and desired to purchase same would have to obtain a bond at a charge of five dollars.

The Fort Wayne Lutheran Hospital had formally opened the new home for nurses.

Dr. Jewett V. Reed, Indianapolis, had been ordered to report for Naval service at New York.

The Board of Trustees of Methodist Hospital, Indianapolis, had voted to take over the Hope Hospital, Fort Wayne.

Two bills had been introduced in Congress, providing for increased ranking of medical officers. Under the existing laws, the highest rank a medical officer could hold was that of major. The bills provided for rankings as high as major general.

The city of Indianapolis had passed an ordinance requiring vaccination of all persons of the age of six or older, whenever there is an epidemic or a threatened epidemic of smallpox. It seems that there was quite a battle over this bit of legislation, the cultists and the Christian Scientists "going to bat" against the measure in a most united manner.

The United States Post Office Department had advertised for five planes to carry United States mail.

It was stated that seven editors of state medical journals had entered the armed forces as medical officers.

Committees had been appointed and an effort was being made to establish a tri-city hospital for Whiting, East Chicago, and Indiana Harbor.

The Vanderburgh County Medical Society had appointed a committee to go before the Council of that city, asking for the establishment of a city laboratory.

It seems that Sharpsville, Tipton County, was without a resident physician, and the citizens were advertising for some medical man to locate there.

Captain Claude H. White, Monrovia, who had been stationed at Camp Zachary Taylor, had been given an honorable discharge from the Army, due to physical disability, and had returned to his former home.

Commissions in the Medical Reserve Corps were as follows:

M. B. Catlett, Fort Wayne, First Lieutenant.
Geo. W. Kirby, Goshen, Captain.
C. Norman Howard, Warsaw, Captain.
David Cohen, Jeffersonville, Captain.
Hugh M. Miller, South Bend, Captain.
Flavius J. Beck, Hartsville, Captain.
Everett H. Pea, Vincennes, First Lieutenant.
B. W. Rhamy, Fort Wayne, Captain.
S. G. Jump, Selma, Captain.
W. W. Ross, Laporte, Captain.

The city of Bicknell had been having a smallpox epidemic and the State Board of Health had ordered a temporary town-wide quarantine for Sunday, February 17th, this for the purpose of holding every person in their home so that a thorough survey of conditions might be made. Twenty-eight concealed cases were found and a total of 1,725 cases were reported to the State Board of Health. Three thousand five hundred and ninety persons were vaccinated and every public building and business place, together with many homes, were fumigated.

Military News

A former Bedford physician, Captain Loniel H. Allen, is now stationed at Camp Rucker, Alabama. He wrote as follows: "I trust that all the boys are behaving themselves in the profession. As a matter of fact, I guess most of them are too busy to do anything else these days. But all of us will welcome the day when we can get back to normal practice and normal living. We are all here to do our duty and get this thing over with completely and successfully."

Captain Eugene Austin, of Anderson, who sailed on December twenty-sixth, has reported that he arrived at his destination safely.

First Lieutenant George Balsbaugh, of North Manchester, is now serving overseas, in the Pacific area.

Captain Solomon V. Panares, formerly of Hammond, who entered the service August 17, 1942, is now stationed at Camp Beale, California.

Dr. B. A. Burkhardt, formerly of Tipton, has been promoted to a major. He is in charge of the Surgical Division at the Field Hospital at Camp Bowie, Texas.

Dr. Vance J. Chattin, of Washington, who was stationed at Bowman Field, Kentucky, during his preliminary flight surgeon training, has been transferred to Randolph Field, Texas, where he will attend the medical aviation school to complete his course. Dr. Chattin is a first lieutenant in the Army Air Corps.

Major William S. Barnett, of Logansport, who was stationed at Fort Knox, Kentucky, is now serving with a station hospital "somewhere in Australia."

Former Greencastle physician, Captain W. J. Fuson, is chief of medical services at the Rapid City, South Dakota, Army Air Base Hospital. Captain Fuson was first stationed at Fort George Wright, Washington.

Captain Dillon Geiger, formerly of Bloomington, has been transferred from the Army Air Corps at Miami Beach, Florida, to New York City, where he will receive training in the specialized field of plastic surgery.

A former Lafayette physician, Captain Thomas Graham, is now assistant chief of the surgical service of a station hospital somewhere in Australia.

Commissioned a lieutenant commander in the United States Navy, Dr. Merle Hoppenrath, of Elwood, was instructed to report at New York City.

Dr. Robert Kabel, of Winchester, has been transferred from Carlisle, Pennsylvania, where he graduated from medical officers' training, to Fort Knox, Kentucky. Dr. Kabel is a captain in the United States Army.

Dr. James Lamey, formerly of Anderson, is serving as a captain in the Guadalcanal area.

Captain O. F. Lehmberg, formerly of Columbia City, is now stationed at Camp Rucker, Alabama.

Dr. W. C. McConnell, formerly of Sunman, is now a captain in the armed forces and is stationed at San Antonio, Texas.

Word has been received that Major Henry T. Earhart, formerly of Indianapolis, is serving with the Army Medical Corps in Australia. He is the youngest graduate of the Indiana University School of Medicine to hold a major's commission.

A promotion from the rank of captain to major has been given to Dr. J. S. McElroy, formerly of New Castle, who is serving in the Medical Corps of the United States Army at Camp Bowie, Texas.

A Lafayette physician, Dr. Kenneth O. Neumann, has been commissioned as a first lieutenant in the United States Army and is serving at a station hospital at Camp Campbell, Kentucky.

Lieutenant Lloyd Rosenbaum, of Anderson, has been sent to Johns Hopkins University for special laboratory training.

Promotion from the rank of first lieutenant to captain was given to Dr. Harry G. Rotman, former Jasonville physician. Captain Rotman had been stationed at the Mayo Clinic at Rochester, Minnesota, but is now serving at the station hospital at Fort Knox, Kentucky.

Captain Paul Long, of Anderson, is now serving at an undisclosed station.

Lieutenant James E. Shanklin, A.F.S., formerly of Hammond, has finished his course in Air Medicine at Randolph Field, Texas, and has been transferred to Blackland Field, Waco, Texas.

Captain Howard A. Stellner, of Pendleton, is now serving on the medical service at the station hospital at Fort Leonard Wood, Missouri. We quote from a letter received from him, as follows: "We in the service also appreciate THE JOURNAL and read it through from cover to cover."

Lieutenant Colonel Frederick C. Warfel, of Indianapolis, has been transferred from Camp Shelby, Mississippi, to Winston-Salem, North Carolina, where he is serving with the Aviation Cadet Board.

A recent arrival at the Walla Walla Army Air Field is Lieutenant Jacob T. Whallon, formerly of Indianapolis, and now assigned to the Medical Corps as ward surgeon. Prior to his entry into the United States Army, Lieutenant Whallon was located at the Indiana University Hospital. He was stationed at the Salt Lake City base before his transfer.

Word has been received of the promotion of Captain James White, formerly of Rosedale, to the rank of major. Major White is stationed at Camp Barkeley, Abilene, Texas.

Word has been received that Lieutenant Commander Leslie Wilson, formerly of Fort Wayne, has been transferred from the Naval Reserve Aviation Base at Peru, to the Naval Training School at Columbus, Ohio, where he was assigned as the senior medical officer.

The fifth class in aviation medicine was graduated from the School of Aviation Medicine, San Antonio, Texas, on December 17, 1942. The following Indiana physicians were among the graduates, all of whom now hold the title of Aviation Medical Examiners:

Ralph E. Barrett, Peru.
John E. Fisher, Clarksburg.
Lloyd M. Headley, Lebanon.
Emory B. Lett, Loogootee.
Joseph D. McDonald, Evansville.
Jack McKittrick, Washington.
Robert W. Owsley, Hartford City.
James G. Shanklin, Hammond.
William C. Stafford, Plainfield.
Daniel C. Tweedall, Evansville.
William J. Warn, Milan.
H. H. Zimmerman, Indianapolis.

Gleanings concerning some of our Indianapolis physicians indicate that they are scattered all over the globe. It is not possible to publish up to date information about all of them, but if you scan the following news items, chances are that you will learn something about some of your colleagues. Wartime regulations forbid publication of information which might give the enemy identification of military units, therefore our notes can not be detailed.

Captain D. W. Brodie is now serving as a roentgenologist with the Medical Examination and Induction Board at Evansville. He was formerly at Fort Knox.

Lieutenant William M. Browning is a battalion surgeon with the Medical Detachment at Camp White, Oregon. We quote from one of his letters as follows: "The Medical Department completed a 120 mile march along with the . . . some weeks ago. The rate of march was about 3.2 m.p.h., which was a fast pace when considering that the hike was made through mountainous terrain. The soft doctors proved to be hardened soldiers."

We find Captain Frank H. Burton serving as a member of the Medical Examining Board at the Montana Recruiting District, Butte, Montana.

Captain Francis E. Carrel is a regimental surgeon at Camp Toccoa, Georgia.

Major Robert M. Dearmin is in charge of the E.N.T. Service at the station hospital at Westover Field, Chicopee Falls, Massachusetts—a busy spot.

Captain E. Wayne Carson is a commanding officer of a medical detachment at the Army Air Base Hospital at McDell Field, Tampa, Florida.

Lieutenant Colonel Murray DeArmond is an instructor in the Department of Military Art, which has to do with the organization and tactics of the Medical Department, at The Medical Field School at Carlisle Barracks, Pennsylvania.

Lieutenant Commander C. L. Eisaman is chief of the E.E.N.T. Department at the U.S. Naval Hospital, Navy Yard, South Carolina.

Lieutenant W. A. Fromhold is an admitting officer at the station hospital at Fort Knox, Kentucky.

"We all appreciate news of our former associates at home and in the service, so your efforts in spreading 'info' is a panacea for a lot of our aches," is a quotation from a letter received from Ralph V. Everly, who is a member of the surgical staff at the station hospital at Baer Field, Fort Wayne.

Captain Roy A. Geider is doing his part in the field of anesthesia, with a surgical group of the U.S. Army, and can be reached through A.P.O. 647, c/o Postmaster, New York City.

Lieutenant Colonel Oliver W. Greer is doing administrative duty as division surgeon at Camp Polk, Louisiana.

We are informed that John H. Greist is chief of the Neuropsychiatric Section at the O'Reilly General Hospital at Springfield, Missouri.

Lieutenant James H. Hawk is serving as chief obstetrician at the Family Hospital at Marine Barracks, Quantico, Virginia.

Information has been received that C. I. Hepburn is doing neurology and psychiatry in the station hospital at Camp San Luis Obispo, California.

Colonel C. D. Holmes, who was originally of Indianapolis, is at the Holabird Ordnance Base at Baltimore, Maryland. His thoughts were centered on the home front, as follows: "As many of the medical men are away doing their bit in the service, it leaves at home not only a heavy burden of professional duties for all, but also the local county, district, and state organizational fires must be kept burning bright till it's over everywhere."

Captain R. T. Hybes is doing surgery at the station hospital at Camp Lee, Virginia.

Lieutenant Colonel Francis P. Jones has supervision of training of medical units and is stationed at the Headquarters of the Second Army at Memphis, Tennessee.

Registrar is the assignment given to Don E. Kelley who is serving at the station hospital at Camp Lee, Virginia.

Captain Wendell C. Kelly is a ward officer, medical service, at the station hospital at Camp Carson, Colorado.

Lieutenant Commander Harry E. Kitterman is in charge of the Orthopedic Department at the U.S. Naval Hospital at Marine Barracks, Quantico, Virginia.

We are informed that Captain Bennett Kraft is chief of the medical service at the station hospital at Camp Gruber, Oklahoma.

Lieutenant Jack L. Loudermilk is stationed at Camp Carson, Colorado.

Lieutenant Leon Levi is a ward officer at the Camp Sutton Hospital at Charlotte, North Carolina.

Assistant battalion surgeon is the duty of Lieutenant John W. Little, Jr., who is stationed at Camp Sutton, North Carolina.

Major Ralph J. McQuiston is chief of the E.E. N.T. Department at the station hospital of the Jefferson Barracks Army Air Force Technical Training Center, Jefferson Barracks, Missouri.

Serving with a service unit detachment at Indianapolis, Major Earl W. Mericle is doing neuropsychiatric evaluation of selectees in induction.

Aviation Medicine is the assignment of Lieutenant Richard C. Miller, who is at the station hospital at Keesler Field, Mississippi.

Lieutenant Harold T. Moore is connected with the Flight Surgeon's Office at Hamilton Field, California.

Lieutenant Colonel I. F. Peak is serving in an administrative capacity in the Medical Corps at the Indiana University School of Medicine.

Captain Roger R. Reed is doing orthopedic surgery at the station hospital at Fort Knox, Kentucky.

Information received reveals that Captain Charles A. Reid is a registrar at the station hospital at Sioux Falls, South Dakota.

Captain Charles F. Seaman is serving as an attending surgeon, and officer in charge of the dispensary, at the Army flying school at Roswell, New Mexico.

Major Hubert L. Sedam is executive officer, and plans and training officer, at the evacuation hospital at Fort Knox, Kentucky.

Lieutenant Colonel O. W. Sicks is chief of the surgical service at the station hospital at Camp Pickett, Virginia.

Captain J. Lawrence Sims is in charge of the out-patient dispensary and is doing E.N.T. work at the station hospital at Selfridge Field, Michigan.

Major Russell J. Spivey is the commanding officer of the station hospital at Baer Field, Fort Wayne.

Chief of the Medical Service is the assignment of Major David L. Smith, who is at the station hospital at Selfridge Field, Michigan.

Lieutenant Commander J. W. Sovine is in charge of a tuberculosis ward at the U.S. Naval Hospital at San Diego, California.

Lieutenant E. P. Tischer is doing medical work in the Army Air Corps at Urbana, Illinois.

Serving as director of X-ray Section, Major Clifford C. Taylor is now located at the Brooke General Hospital at Fort Sam Houston, San Antonio, Texas.

Lieutenant Hugh K. Thatcher, Jr., is instructing technicians and serving as a detachment commander of the medical department at the general hospital at Camp Carson, Colorado.

Captain Kenneth E. Thornburg is chief of medical service of a unit at the station hospital at Camp Lee, Virginia.

Lieutenant Colonel John E. Wyttenbach is chief of the Sanitation Branch, doing military preventive medicine, at Camp Wheeler, Georgia.

Lieutenant Colonel Morris C. Thomas reported that his official designation is Chief of Medical Service; that the work in general is administrative and supervisory—conducting of general training and instruction for new officers.

News Notes

Dr. E. C. McBride, of Terre Haute, was elected president of the City Board of Health.

Dr. J. Carl Freed, of Attica, was named health officer for the city of Attica.

Dr. W. L. Harris, of Evansville, has been appointed police surgeon for the city of Evansville.

Dr. and Mrs. E. M. Sweet, of Martinsville, observed their golden wedding anniversary on January eighteenth.

Dr. Kenneth A. Hill, of Paragon, and Miss Barbara L. Strauss, of Indianapolis, were married in Indianapolis on January sixteenth.

Dr. O. C. Higgins, Dr. Clarence G. Kern, and Dr. E. A. Rainey were appointed to the Lebanon Board of Health.

Dr. Homer B. Annis, former Minneapolis physician, has become associated with the Caylor-Nickel Clinic at Bluffton.

Dr. and Mrs. Carl B. Sputh, Sr., announce the marriage of their son, Dr. Carl B. Sputh, Jr., to Miss Ruth Agnes Means, a graduate nurse of the Indianapolis City Hospital. The wedding took place on February tenth at the Grace Methodist Church. Dr. Sputh, Jr., is resident in the Ear, Nose and Throat Department at the Indianapolis City Hospital.

Dr. William E. Amy, of Corydon, has been reappointed as the county physician for Harrison County.

Dr. W. M. McGaughey, of Greencastle, has been appointed the civilian attending physician for the DePauw University Naval Flight Preparatory School.

Dr. Everett L. Kalb and Miss Afton J. White, both of Indianapolis, were married in Indianapolis on January ninth. Dr. Kalb is an interne at the City Hospital.

Dr. J. E. McMeel, of South Bend, was elected president of the South Bend Board of Health, succeeding Dr. George F. Green, who is now serving in the armed forces.

Dr. A. Elizabeth Garber, who is a daughter of Dr. and Mrs. E. C. Garber of Dunkirk, is one of six women physicians who were appointed by the surgeon general to practice medicine in the United States Army. She is assigned to service at the WAAC infirmary at Des Moines, Iowa. She has a rank equivalent to that of a lieutenant in the Army.

Dr. W. C. Moore, secretary of the State Board of Medical Registration and Examination, with Mrs. Moore and Miss Ruth V. Kirk, executive-secretary of the board, attended the annual congress of the Federation of State Medical Boards of the United States. The congress was held in Chicago, February 15 and 16.

At the eleventh annual meeting of the American Academy of Orthopedic Surgeons, Dr. E. Bishop Mumford, of Indianapolis, was named as president-elect of the organization.

Physicians on the Gary Board of Health are: Dr. B. W. Harris, president; Dr. A. F. Gregoline, secretary and city health commissioner; Dr. Michael Shellhouse; Dr. Hubert M. English, and Dr. G. L. Verplank.

Miley B. Wesson, M.D., chairman of the Committee on Research, American Urological Association, has asked us to announce that the Five Hundred Dollar Research Prize annually offered by the American Urological Association will not be awarded this year. The government has again discouraged the holding of medical conventions, except those primarily of military interest and, under the circumstances, plans for the June meeting in St. Louis have also been cancelled.

Announcement has been made of the appointment of John F. Busch, M.D., as director of Medical and Health Service for the Eastern Area of the American Red Cross, with headquarters in Alexandria, Virginia. Indiana is included in this area. Dr. Busch has been connected with the Georgia State Department of Public Health, where since 1937 he was associated with the Division of Tuberculosis Control.

A modern three-story hospital, including seven wards with a normal capacity of 180 beds has been opened at the Indiana State Prison, according to an announcement made by Warden Alfred F. Dowd. The arrangement of the hospital, now completely equipped, has been carefully planned so as to meet the special requirements and problems confronting the medical services of a correctional institution.

AMERICAN BOARD OF OPHTHALMOLOGY EXAMINATIONS

The American Board of Ophthalmology announces that the 1943 examinations will be held in New York City on June 4 and 5, and in Chicago on October 8 and 9. Candidates will be required to appear for examination on two successive days. For formal application blanks, write to Dr. John Green, Secretary, 6830 Waterman Avenue, St. Louis, Missouri.

ILLINOIS OFFERS REFRESHER COURSE

A refresher course in largyngology, rhinology and otology will be held March 22 inclusive 27, 1943, at University of Illinois College of Medicine.

To meet the needs of ear, nose and throat specialists who, under existing conditions, are able to devote only a brief period to postgraduate review study, this didactic and clinical course has been arranged. Registration is limited. The fee for the complete course is $50.00. In letter requesting application for registration, state school and year of graduation, also details concerning specialty training and experience.

Address Department of Oto-Laryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago, Illinois.

Dr. Hugh A. Cowing, of Muncie, was re-elected president of the Muncie Board of Health. Drs. John H. Bowles and F. W. Dunn are also members of the board.

COURSE IN OTOLARYNGOLOGY OFFERED BY INDIANA UNIVERSITY SCHOOL OF MEDICINE

The Indiana University School of Medicine, through Dr. C. H. McCaskey, chairman of the Department of Otolaryngology, announces that the 1943 Anatomical and Clinical Course in Otolaryngology will begin Monday, April 12, and continue through Saturday, April 24. This is primarily an intensive course in anatomy of the head and neck, and goes into the detailed anatomy of this region. This course also includes supervision of and instruction in the major operative procedures of otolaryngology.

Each morning period begins at 8:30 and will be devoted to co-related subjects in otolaryngology; important discussions; and surgical and dry clinics. The afternoon and evening sessions will convene at 1:30 and 7:00, respectively, for anatomical dissections and presentations. Clinical lectures pertinent to the dissection will be included.

On Sunday evening, April 11, at 6:30, there will be a dinner at the Indianapolis Athletic Club, which will be given by the Indianapolis Academy of Ophthalmology and Otolaryngology, to which each member taking this course is invited. The guest speaker will be announced later.

NORTHERN TRI-STATE MEETING

A meeting of the Northern Tri-State Medical Association will be held in the Rackham Building, University of Michigan, at Ann Arbor, Michigan, on April 13, 1943. A fine program has been arranged by the faculty of the University of Michigan, as follows:

A. M.	
9:00- 9:30	"The Clinical Significance of Leukopenia," C. C. Sturgis, M.D., Professor of Internal Medicine, University of Michigan.
9:30-10:00	"The Diagnosis and Treatment of Coronary Artery Disease," Frank N. Wilson, M.D., Professor of Internal Medicine, University of Michigan.
10:00-10:30	"Differential Diagnosis and Management of Hypertension," Herman H. Riecker, M.D., Associate Professor of Medicine in Postgraduate Medicine, University of Michigan.
10:30-11:00	"The Management of the Edematous Patient," Richard H. Lyons, M.D., Assistant Professor of Internal Medicine, University of Michigan.
11:00-11:30	"Headaches; Diagnosis and Treatment," Russell N. DeJong, M.D., Associate Professor of Neurology, University of Michigan.
11:30-12:00	"Emotional Influences on the Gastro-Intestinal Tract," Carl D. Camp, M.D., Professor of Neurology, University of Michigan.

P. M.

12:15	Luncheon. Michigan League. Speaker: Professor Preston M. Slosson. Subject: "World Events."
1:30- 2:00	"The Treatment of Tinea Infections," A. C. Curtis, M.D., Professor of Dermatology and Syphilology, University of Michigan.
2:00- 2:30	"Fundamental and Clinical Considerations of Traumatic Shock," Frederick A. Coller, M.D., Professor of Surgery, University of Michigan.
2:30- 3:00	"The Use of Reduced Temperatures in the Management of Peripheral Vascular Disease," J. Matthews Farris, M.D., Instructor in Surgery, University of Michigan. (Motion Pictures.)
3:00- 3:30	"Present Status of Hormone Therapy for Cancer of the Prostate," Reed M. Nesbit, M.D., Associate Professor of Surgery, University of Michigan.
3:30- 4:00	"Discussion and Questions Commonly Asked About the Eyes by Patients," F. Bruce Fralick, M.D., Professor of Ophthalmology, University of Michigan.
4:00- 4:30	"Complications of Acute Upper Respiratory Infections," A. C. Furstenberg, M.D., Professor of Otolaryngology, University of Michigan.
4:30- 5:00	"Caudal Anesthesia in Obstetrics," Norman F. Miller, M.D., Professor of Obstetrics and Gynecology, University of Michigan.

SCHEDULE FOR WAR SESSION ANNOUNCED BY AMERICAN COLLEGE OF SURGEONS

New developments in military and civilian medical and hospital service will be brought to members of the medical profession at large, and hospital representatives, through a series of twenty war sessions, the Indiana session to be held at Indianapolis Friday, March 5, at the Claypool Hotel, under the sponsorship of the American College of Surgeons with the cooperation of other medical organizations and of the Federal medical services. This meeting is for physicians in the area covered by Indiana, Kentucky and Ohio.

The College plans to bring authoritative information about new developments in military and civilian medical and hospital service directly to those engaged in health work in various parts of the country, some of whom are already with the armed forces; others will be enlisting this year; and those who are essential at home must plan to increase their efficiency in order to give adequate medical service to the people on the home front.

The session will consist of an all-day program, lasting from 9:00 o'clock a.m. to 10:00 p.m., including luncheon and dinner conferences. There will be eight meetings, four of which will be for the entire assembly, and the remainder will be divided into two meetings each for physicians and for hospital representatives. Nationally-known representatives of the United States Army, the United States Navy, the United States Public Health Service, the United States Office of Civilian Defense, the United States Procurement and Assignment Service, and the War Manpower Commission, Procurement and Assignment Service, will address the meetings and will lead discussions, in addition to participation by prominent civilian physicians, surgeons, and hospital executives.

Topics to be discussed relating to military medicine will include care of the ill and injured in combat zones and after evacuation. The newer types of injuries encountered in this war, such as crush and blast injuries, will be especially considered, together with prevention and treatment of infections, and treatment of burns, shock, and injuries of specific parts of the body. Anesthesia, plastic surgery, and the psychoneuroses of war will be some of the other topics. Problems of civilian medical care in wartime which will be discussed will include the responsibilities of individual doctors and hospitals; personnel problems of hospitals; organization of emergency medical services; maintaining adequate supplies, furnishings, and equipment; maintenance of high standards of medical and nursing education, and of hospital service in general; hospital public relations; and administrative adjustments in professional staffs of hospitals. The opening meeting of each session will be devoted to discussion of "Medical and Surgical Aspects of Chemical Warfare," led by a representative of the United States Office of Civilian Defense, and the closing meeting will be a panel discussion on problems in wartime civilian medical practice to be led by representatives of the United States Public Health Service, the American College of Physicians, the American Medical Association, medical services in industry, and the American College of Surgeons. Some of the topics for consideration at this meeting will be endemic and epidemic diseases, including tropical diseases; medical services in industry; medical and surgical practice; and supplementary postgraduate education for medical officers and civilian doctors.

Dr. Irvin Abell, chairman of the Board of Regents of the College, in announcing the war sessions, said that although participating states and provinces for each meeting have been designated to facilitate arrangements, there will be no geographic restriction on attendance, and those who plan to attend may select the place and time which are most convenient.

The American College of Surgeons cancelled its 1942 national meeting and is holding in abeyance plans for a Clinical Congress in 1943, in the meantime offering the regional meeting plan provided by the war sessions to save the time of the doctors and other personnel, and to minimize transportation difficulties, without sacrificing unduly during wartime the educational and stimulative benefits of medical assemblies.

A dinner meeting will be held at six o'clock, at which Dr. Carl H. McCaskey will preside. In addition to the representatives of the Army, Navy and Public Health Service who will speak at this meeting, Dr. Irvin Abell will speak from the standpoint of the civilian doctor, and Dr. Charles W. Myers will speak from the standpoint of the hospital administrator.

INDIANA UNIVERSITY NEWS NOTES

Doctors and technicians at the Indiana University Medical Center have combined with their teaching and other duties research work designed to save the lives of men in the nation's armed services. The extent of this research in the field of military medicine is disclosed in a report received by President Herman B Wells from Dean W. D. Gatch, of the university's school of medicine. Under government directions all medical research is now being confined to the military field, the report says.

Work which has been carried on or is still in progress at the medical center was listed by Dean Gatch as including:

The researches by Dr. R. N. Harger on chemical warfare; on the detection of noxious substances in food and water supplies; on the effects of ether; and on the digestion of certain foods.

The studies by Dr. K. G. Wakim and Dr. K. K. Chen on the effects of dicumeron, a substance which prevents coagulation of the blood.

The demonstration by Dr. Wakim that heat is harmful to patients in surgical shock.

The investigation by Professor William Headlee of the incidence of intestinal parasites in patients at the Riley Hospital.

Dr. C. G. Culbertson has carried out several valuable studies having to do with the improvement and simplification of laboratory tests.

Dr. Lyle Weed and Dr. Thurman Rice have continued their study of the bacterial population of operating rooms, the results of which have been published in several papers.

In addition to the foregoing, a considerable number of clinical investigations were done. Among these were studies of the beneficial effects of cold on gangrenous extremities; of the treatment of hernia complicated by imprisoned and gangrenous bowel; of the action of certain new synthetic drugs on heart disease; and of the effects of sulfonamide drugs on wounds.

The war has placed on the Indiana University Medical Center the heaviest burden in the medical center's history, according to Dean W. D. Gatch, of the school of medicine.

The war-created problems of the center were listed by Dean Gatch as including the stepped-up teaching program for training doctors, dentists and nurses, military service demands on the professional staff, unprecedented turnover in non-professional employes, and greatly increased cost of supplies.

Despite the war demands, the James Whitcomb Riley Memorial Hospital for Children, the Robert W. Long Hospital, and the William H. Coleman Hospital for Women, the three hospitals included in the medical center, admitted and treated during the past year 10,632 patients, a normal number, from all parts of the state, and had an average occupancy of 86 per cent. In addition to the hospital patients, the medical center took care of approximately 45,000 visits to its out-patient clinics, Dr. Gatch reported.

Sixty-two of the faculty members of the school of medicine entered military service during the year, and 104 graduate nurses left the medical center largely to go into military service, the report said, adding that the doctors and nurses leaving had for the most part enlisted in General Hospital No. 32, under the sponsorship of the medical center.

"The accelerated program of medical teaching," Dean Gatch said, "has placed a heavy load on our depleted faculty, but they have borne it without complaint. There has been no lowering of standards of medical education. The country needs doctors, but it does not need poorly trained or irresponsible doctors. We have required all students to attend at least 95 per cent of all regularly scheduled exercises.

"The demand for graduate nurses is even more urgent than the demand for physicians. This has forced us to operate the hospitals with a decreased force. At present we are forty short of normal. Members of the nursing school faculty have been compelled to serve the wards at noon, night, and holidays to relieve the graduate nurses."

Dean Gatch reported also that the medical school curriculum had been revised to introduce courses having a direct bearing on military medicine, such as tropical medicine, parasites, treatment of wounds, shock, burns, and the effects of poisonous gases. All research, he added, has been limited to military medicine.

Major problems in administration faced by the medical center were listed by Dean Gatch as the maintenance of staff in the face of competition of war industries and the rising cost of supplies and foodstuffs. A total of 599 employes were attracted away from the medical center by better paying jobs during the sixteen months ending November first, and in December and November the employe turnover reached an all-time high.

BUY UNITED STATES DEFENSE BONDS

Deaths

Charles J. Brockway, M.D., of Brookston, died on January eighth. He was fifty-four years of age. He graduated from the Jefferson Medical College, Philadelphia, in 1911.

* * *

Charles B. Harpole, M.D., of Evansville, died January tenth, at the age of seventy-seven. He graduated from the Chicago Homeopathic Medical College in 1893.

* * *

Amelia R. Keller, M.D., of Indianapolis, died January twenty-eighth, at the age of seventy-two. She graduated from the Central College of Physicians and Surgeons, Indianapolis, in 1893.

Harvey W. McKane, M.D., of Columbus, died on January eleventh. He was seventy-five years of age. He graduated from the Indiana Medical College, School of Medicine of Purdue University, Indianapolis, in 1906.

* * *

Oscar E. McWilliams, M.D., of Anderson, died at his home on January thirty-first. He was seventy-four years of age. He graduated from the University of Illinois College of Medicine, Chicago, in 1899. Doctor McWilliams served as a captain in the Medical Corps of the United States Army during World War I. He was a member of the Madison County Medical Society, the Indiana State Medical Association, and the American Medical Association.

DEATHS OF INDIANA PHYSICIANS IN 1942

(M) Member I. S. M. A.; (H) Honorary Member; (R) Retired

NAME	AGE	DATE	PLACE	CAUSE OF DEATH On Death Certificate
Mentzer, Simeon E. (H)	79	1-11-42	Monroeville	Carcinoma of right lung
Terrell, Beecher J. (M)	73	1-15-42	Indianapolis	Auto-train collision
Gilbert, Alvarenous K. (R)	90	1-16-42	Clayton	Arteriosclerosis
Byrns, James D. (M)	72	1-18-42	Mitchell	Carcinoma of stomach and liver
Lyon, Martha B. (M)	70	1-18-42	South Bend	Bronchial asthma. Pulmonary tuberculosis
Beck, Condie B.	73	1-23-42	Rising Sun	Coronary occlusion
Dooley, Rufus L.	79	1-25-42	Montezuma	Chronic nephritis
Kendall, Perry A. (M)	72	2- 1-42	Crothersville	Diabetes mellitus. Arteriosclerosis. Ulcer of the stomach
Cooper, James R. (M)	38	2- 7-42	Richmond	Influenza. Pneumonia
Irwin, Henry W. (M)	60	2- 8-42	Indianapolis	Streptococcal pneumonia
Buchannon, Wm. A. (M)	71	2-11-42	Hammond	Pyemia. Diabetes mellitus
Lawson, John E.	82	2-15-42	Jeffersonville	Arteriosclerosis. Uremia
Martin, John A.	72	2-19-42	Indianapolis	Hodgkin's disease, splenic type
Hutchins, Frank F. (M)	72	2-22-42	Indianapolis	Cerebral hemorrhage. Cerebral arteriosclerosis
Reich, Siegmund	57	2-26-42	East Chicago	Uremia. Acute nephritis. Myocarditis
Martin, Prince E.	56	3- 2-42	East Chicago	Unknown
Grosvenor, Elmer B.	80	3- 3-42	Richmond	Myocarditis
McGowan, John W. (H)	89	3-26-42	Oakland City	Myocarditis. Senility
Clifford, Joseph W. (H)	79	3-26-42	Worthington	Coronary occlusion. Heart failure
Gill, John G. (R)	80	3-26-42	Albion	Diabetes mellitus. Myocarditis
Brooks, Emory W.	66	3-30-42	Muncie	Cerebral hemorrhage
Koons, Harvey H. (M)	68	4- 5-42	New Castle	Coronary occlusion
McFarlin, Charles C.	73	4- 6-42	Westport	Chronic gastro-enteritis. Arteriosclerosis
Boulden, Melville F. (M)	72	4- 7-42	Frankfort	Pulmonary edema. Coronary occlusion
Lairy, Manson M. (H)	79	4-13-42	Lafayette	Mesenteric embolus. Auricular fibrillation
Dickey, Edward S.	67	4-14-42	East Chicago	Coronary thrombosis. Arteriosclerosis. Heart disease
Kreider, Martin K. (H)	95	4-16-42	Goshen	Hypostatic pneumonia
Leffel, John S. (M)	53	4-20-42	Connersville	Coronary thrombosis
Morris, John L. (M)	73	4-24-42	Princeton	Coronary thrombosis. Coronary occlusion and sclerosis

NAME	AGE	DATE	PLACE	CAUSE OF DEATH On Death Certificate
Liston, Merrill E.	33	4-24-42	South Bend	Intestinal obstruction. Abdominal carcinomatosis
Stowers, Jesse L.	77	4-26-42	Clinton	Coronary occlusion. Arteriosclerosis. Chronic myocarditis
Matlock, Neal	64	4-27-42	Medora	Coronary occlusion
George, Walter R.	70	5- 1-42	Indianapolis	Hemorrhagic diathesis. Benign hypertrophy. Hypothyroidism
Casebeer, Ithimer M.	72	5- 4-42	Clinton	Chronic myocarditis. Died of embolism during operation for removal of left kidney
Gwaltney, Samuel P.	77	5- 7-42	Rockport	Lymphatic leukemia
Baer, Almerin W.	80	5-11-42	Gary	Cerebral hemorrhage
Thayer, Marion N.	66	5-13-42	Linton	Cerebral hemorrhage. Arteriosclerosis. Psychosis with organic brain disease. Hypertensive encephalopathy. Hypertension
Emmick, Thomas C.	69	5-14-42	Mt. Vernon	Cerebral hemorrhage
Eberle, Julia C.	93	5-16-42	Indianapolis	Interstitial nephritis. Arteriosclerosis
Gobbel, Fred R.	84	5-17-42	English	Hypertension. Shock due to fracture of hip
Lueders, Albert G.	66	5-18-42	Ft. Wayne	Heart failure from persistent sinus arrythmia
Lyons, Marcus W. (M)	67	5-19-42	South Bend	Coronary disease
Short, Richard B.	75	5-21-42	Bedford	Cerebral hemorrhage
Martz, Christian	88	5-23-42	Ft. Wayne	Bronchopneumonia. Cardiovascular disease
Hoover, Loren (M)	74	5-29-42	Decker	Uremic coma. Cardiovascular renal disease. Cardiac insufficiency
Fisher, George C.	85	6- 5-42	Indianapolis	Arteriosclerosis
Gregg, Joseph W.	73	6- 5-42	Brazil	Heart syncope. Arteriosclerosis. Chronic myocarditis
McMahan, Ada (M)	73	6-24-42	Lafayette	Postoperative shock following cholecystectomy
Clarke, Henry P.	75	6-25-42	Indianapolis	Coronary occlusion. Myocardial failure
Williamson, Alvis A. (M)	68	6-28-42	Michigantown	Diabetes mellitus. Acute hepatitis
Fleener, Otto F.	64	6-28-42	Hammond	Carcinoma of sigmoid
Steininger, Joseph F. (M)	29	6-30-42	Gary	Drowned
White, Benj. S. (M)	87	7- 3-42	Greensburg	Cardiac dilatation
Row, George S. (H)	75	7- 8-42	Indianapolis	Carcinoma of right side of face
Thomas, Albert A. (M)	58	7-18-42	Indianapolis	Suicide, gunshot
Inks, Chas. A. (M)	66	7-21-42	Nappanee	Cerebral hemorrhage. Arteriosclerosis
Ragan, Chas. E.	61	7-21-42	Terre Haute	Coronary occlusion
Shanahan, Alva A.	73	7-21-42	Marion	Cardiovascular renal disease. Essential hypertension. Arteriosclerosis
Miller, John C. (M)	38	7-24-42	Anderson	Coronary occlusion
Pettijohn, Orlando B.	92	7-24-42	Noblesville	Senility. Myocarditis. Arteriosclerosis
Brown, Benj. A. (M)	76	7-24-42	Indianapolis	Struck by auto. Multiple fractures
Cowan, Edward H.	95	8- 1-42	Crawfordsville	Arteriosclerosis
Rubsam, Joseph (M)	75	8- 7-42	Logansport	Carcinoma of stomach
Kveton, Lt. Emil N. (M)	29	8- 9-42	Ft. Wayne	Killed in Naval action
Young, Alva A.	61	8- 9-42	Hammond	Hypertension. Coronary sclerosis
Dillinger, Jos. R. (M)	66	8-16-42	Frenck Lick	Amyotrophic lateral sclerosis
Kerr, Lt. John F. (M)	35	8-18-42	Indianapolis	Crushed under a train
Kleiser, Arthur J. (R)	80	8-20-42	Waveland	Cerebral hemorrhage. Hypertension
Hendricks, Walter E. (R)	89	8-21-42	Martinsville	Coronary occlusion
Fisher, Royal S.	69	8-26-42	Arcadia	Cardiac thrombosis. Arteriosclerosis
Walther, Joseph E. (M)	59	8-28-42	Rushville	Cirrhosis of the liver, with partial block and elema. Cardiac failure
Hackley, Robert P.	71	8-30-42	Medaryville	Cerebral hemorrhage. Arteriosclerosis
Sturdevant, Joel D. (M)	64	8-31-42	Noblesville	Hobnail cirrhosis of the liver
Ambrose, Uryal C.	79	9- 3-42	Cumberland	Cerebral hemorrhage. Hypertension
Cook, John H.	61	9- 5-42	Terre Haute	Coronary disease
Loop, Aubrey L. (M)	67	9- 5-42	Crawfordsville	Angina pectoris. Coronary occlusion
Reglien, Norman C.	38	9-11-42	Michigan City	Myocardial infarction
Chance, Bert V. (M)	68	9-14-42	Windfall	Coronary occlusion
Grubbs, Samuel B.	71	9-19-42	Carmel	Unknown
McCurdy, Olive B.	77	9-21-42	Indianapolis	Uremia. Mesenteric carcinoma
Gish, John L.	82	9-29-42	South Bend	Chronic myocarditis. Arteriosclerosis

NAME	AGE	DATE	PLACE	CAUSE OF DEATH On Death Certificate
Long, Enoch E. (M)	73	9-30-42	Shoals	Coronary disease. Acute cardiac dilatation
Sowder, Charles R. (M)	72	9-29-42	Indianapolis	Suicide. Gunshot
Campbell, Clem S.	59	9-30-42	South Bend	Unknown
Roope, Alfred P.	73	10- 2-42	Columbus	Cerebral hemorrhage
Overman, Chas. J. (M)	76	10- 3-42	Marion	Coronary thrombosis
Masters, Luella M.	81	10- 7-42	Thorntown	Carcinoma of the colon
Gaebe, Edward C. (M)	51	10- 7-42	Gary	Coronary occlusion. Myocarditis
Ray, Cecil A.	66	10-12-42	Riley	Hodgkin's disease. Chronic valvular heart disease. Congestive heart failure
Finch, Gilbert R. (M)	76	10-19-42	Centerpoint	Cardiovascular renal disease
Mattox, Ernest L. (M)	62	11- 1-42	Terre Haute	Acute cardiac dilatation. Myocarditis following operation for intestinal obstruction
Bruner, Mary Ladd	87	11- 6-42	Greenfield	Uremia. Chronic arthritis. Arteriosclerosis
Hoy, Clifford R. (M)	54	11- 7-42	Syracuse	Subphrenic abscess following appendectomy
Dwyer, Robert (M)	64	11-11-42	Indianapolis	Cerebral hemorrhage
Loy, Ed. N.	70	11-14-42	Rensselaer	Cerebral hemorrhage. Transverse myelitis. Cardiovascular renal disease
Barnett, Daniel E.	67	11-18-42	Homer	Coronary occlusion
Ruddell, Benson (M)	66	11-24-42	Frankfort	Carcinoma cervical glands
Arburn, Charles	84	11-27-42	Wadesville	Chronic myocarditis. Hypostatic pulmonary congestion
Eastman, Joseph R. (H)	71	11-29-42	Indianapolis	Diabetes mellitus. Myocarditis
Mettel, Howard B. (M)	46	11-30-42	St. Louis	Bronchopneumonia
Wrork, John H. (M)	72	12- 1-42	Shelburn	Brain tumor
Knapp, Henry C. (M)	75	12- 4-42	Huntingburg	Angina pectoris. Arteriosclerosis
Harvey, David B.	81	12- 6-42	Marion	Chronic myocarditis. Coronary thrombosis. Senility
Cregor, Frank W. (H)	69	12- 9-42	Indianapolis	Pulmonary edema. Cardiovascular renal disease
Caraway, Samuel H.	76	12-14-42	Indianapolis	Lobar pneumonia. Senile psychosis
Geisler, George J. (M)	55	12-14-42	South Bend	Coronary thrombosis. Transverse myelitis
MacBeth, Bertha G. (M)	69	12-15-42	Ft. Wayne	Aortic obstruction. Chronic myocarditis
Metcalf, Henry P. (H)	86	12-15-42	Rushville	Pulmonary embolus
Hessler, Robert	81	12-17-42	Indianapolis	Cerebral sclerosis
Light, Mason B. (M)	53	12-19-42	Indianapolis	Carcinoma of the larynx
Goldman, Jas. M. (M)	74	12-20-42	Vincennes	Diabetes mellitus. Coronary occlusion
Casey, Ott (M)	60	12-29-42	Clinton	

ABSTRACT: FORTY-EIGHT AMERICAN PHYSICIANS DIED IN MILITARY SERVICE IN 1942

During 1942, 48 physicians of the United States died in military service, 11 of them in action, *The Journal of the American Medical Association* for January 16 reveals in its annual compilation of data on deaths among physicians. Among the other highlights in the summary are that the average age at death was 65, as compared with 65.9 in 1941, and also that there was a net increase of 1,952 physicians to the profession in the United States last year. *The Journal* report says:

"During 1942 a total of 3,328 obituaries of physicians were published in *The Journal*. Of these 3,211 were classified as of the United States and 117 as of Canada; 85 were of women. The American Medical Directory Report Service, including the United States, possessions and Canada, recorded 3,580 deaths, including 3,353 for the United States alone, or 142 more than the 3,211 published in *The Journal*.

"*Military Service.*—Eleven physicians died in action during World War II and 37 while in military service. Of those killed in action, 4 died in the Philippine Islands, 1 at Corregidor, 1 when a ship in the Carribean was torpedoed, 1 somewhere in the Pacific, 1 at Java, 1 at sea (unknown) and 2 at Guadalcanal. Of those who died while in military service, 9 were killed in airplane accidents and 3 were reported suicides. Coronary diseases were responsible for 7 deaths, acute epidemic hepatitis 1, septicemia 1, carcinoma of the sigmoid 1 and uremia 1. Two died when the barracks were destroyed by fire and 1 was killed by the accidental discharge of a sentry's gun, 1 in a shipwreck off the coast of Newfoundland, 2 in automobile accidents and 1 in a train accident. The rest were classified under various physical conditions.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

January 8, 1943.

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D., and T. A. Hendricks, executive secretary.

Upon the suggestion of the chairman, four o'clock, Friday afternoon, every two weeks, was set as the regular meeting time for the Bureau.

Newspaper release, "Annual Secretaries' Conference, January 24," approved for publication.

Reports on medical meetings:

Feb. 10, 1942—Fayette-Franklin County Medical Society, Connersville. "Toxemia of Late Pregnancy." (15 present.)

Feb. 18, 1942—Parke-Vermillion County Medical Society, Clinton. "Infections of the Hand." (10 present.)

Mar. 18, 1942—Parke-Vermillion County Medical Society, Clinton. "Head Injuries." (12 present.)

Mar. 19, 1942—Board meeting. Woman's Auxiliary to the Indiana State Medical Association, Indianapolis.

Mar. 20, 1942—Cass County Medical Society, Logansport. "Care of Indigent under Welfare Law." (15 present.)

Apr. 29, 1942—Valparaiso University Biology Club, Valparaiso.

May 20, 1942—Parke-Vermillion County Medical Society, Clinton. "Hypertension."

Nov. 10, 1942—Fayette-Franklin County Medical Society, Connersville. "Burns." (10 present.)

Request made by *The Indianapolis News* for a series of special articles on medical attention and health during the war. Suggestion made that these articles might come from the following sources:

(1) Bureau of Publicity.

(2) Secretary of State Board of Health.

(3) Secretary of City Board of Health.

(4) Superintendent of Indianapolis City Hospital.

(5) Superintendent of University Hospitals.

The Bureau felt that this is essentially the responsibility of the Indianapolis Medical Society, as this would be a special series of articles filling the request of an individual local paper, and the articles would not be distributed throughout the state. Therefore, the Bureau suggested that the chairman of the Publicity Committee of the Indianapolis Medical Society be invited to attend the next meeting of the Bureau.

Memorial statement of the Bureau in regard to Dr. Frank Cregor approved for publication in the February issue of THE JOURNAL.

It was the feeling of the Bureau that despite much publicity to the contrary, there are in Indiana at the present time enough physicians to take care of the public, and that no one need feel alarmed or have any apprehension that there will not be proper medical care should any epidemic occur. It was suggested that a newspaper article stating this fact be prepared.

January 22, 1943.

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D., C. H. McCaskey, M.D., president, and T. A. Hendricks, executive secretary.

The chairman discussed informally the work of the Bureau for 1943.

Newspaper release, "War Emergency Medical Care," approved for publication in Saturday papers, February 13.

The Bureau discussed further the request made by *The Indianapolis News* for special articles on "Medical Attention and Health During the War." As these articles are to be prepared specially for *The Indianapolis News*, the matter was referred to the Indianapolis Medical Society. Report made that the chairman of the Public Relations Committee of the Indianapolis Medical Society would call a meeting of his committee and discuss this matter with the committee.

The committee discussed the question of supplying speakers for medical meetings and reached the conclusion that whenever requests are made by societies for speakers, the Bureau should attempt to obtain someone to fill these programs.

Future meetings:

Jan. 29, 1943—Woman's Auxiliary to the Indianapolis Medical Society. Speaker obtained.

Report made that the Budget Committee had allowed the Bureau of Publicity $500.00 for 1943. The Bureau spent $250.81 in 1942.

The Bureau approved the preparation of a series of articles for the newspapers upon the sulfonamide drugs, calling attention to the dangers and limitations and, if used correctly, the beneficial assets of these drugs. One member of the Bureau was to ask a physician who has worked with these drugs to prepare these articles. These are to be written in language that a layman can understand. The general title suggested for this series of articles is "Sulfa Drug Medication."

COUNTY SOCIETIES

COUNTY MEDICAL SOCIETY OFFICERS

BARTHOLOMEW COUNTY MEDICAL SOCIETY:
President, Lowell Beggs, Columbus
Vice-president, Dewey D. Yoder, Columbus
Secretary-treasurer, Marvin R. Davis, Columbus

DEKALB COUNTY MEDICAL SOCIETY:
President, Bonnell Souder, Auburn
Vice-president, D. M. Hines, Auburn
Secretary-treasurer, C. B. Hathaway, Butler

GRANT COUNTY MEDICAL SOCIETY:
President, Holst Nyce, Van Buren
Vice-president, Leon J. Garrison, Gas City
Secretary-treasurer, Russell W. Lavengood, Marion

HANCOCK COUNTY MEDICAL SOCIETY:
President, C. M. Gibbs, Greenfield
Vice-president, Robert O. Scott, Charlottesville
Secretary-treasurer, Joseph L. Allen, Greenfield

JACKSON COUNTY MEDICAL SOCIETY:
President, Harold E. Miller, Seymour
Vice-president, W. H. Shortridge, Seymour
Secretary-treasurer, G. H. Kamman, Seymour

JENNINGS COUNTY MEDICAL SOCIETY:
President, W. H. Stemm, North Vernon
Vice-president, John H. Green, North Vernon
Secretary-treasurer, D. L. McAuliffe, North Vernon

MARSHALL COUNTY MEDICAL SOCIETY:
President, Homer Burke, Bremen
Vice-president, M. O. Klingler, Plymouth
Secretary-treasurer, L. W. Vore, Plymouth

BENTON COUNTY MEDICAL SOCIETY:
President, Virgil Scheurich, Oxford
Secretary-treasurer, V. L. Turley, Fowler

WELLS COUNTY MEDICAL SOCIETY:
President, Robert C. Wybourn, Ossian
Vice-president, Harold D. Caylor, Bluffton
Secretary-treasurer, H. Brooks Smith, Bluffton

LOCAL SOCIETY REPORTS

Adams County Medical Society members held a dinner meeting, with election of officers, at Decatur on December twenty-ninth. Eight members were in attendance at this meeting.

* * *

Clay County Medical Society members met at the Glenn Home, at Brazil, on January fifth. A chicken dinner was served and an election of officers was held. Eighteen members and guests attended the meeting.

* * *

Fayette-Franklin County Medical Society members held a business meeting at the McFarlan Hotel, at Connersville, on December eighth. Seven members were present at the meeting.

Dearborn-Ohio County Medical Society members met at the New Reagan Hotel, at Lawrenceburg, on December seventeenth. Dr. Harry Fry, of Cincinnati, Ohio, was the speaker of the evening. He spoke on fractures of the femur. Seven members were present at the meeting.

* * *

Delaware-Blackford County Medical Society members held their regular scientific meeting at the Ball Memorial Hospital Auditorium, at Muncie, on January twenty-sixth. Thirty members and guests were in attendance.

* * *

Elkhart County Medical Society members met at Hotel Elkhart, Elkhart, on January sixth. The following subjects were discussed: "Treatment of Burns" and "Surgical Treatment of Varicose Veins," by Dr. Henry N. Harkins, of Detroit, Michigan; "Experiences as an Army Urologist," by Captain M. O. Lundt, of Elkhart. A report on the state society meeting was given by Dr. A. C. Yoder, of Goshen. Twenty-eight members attended the meeting.

* * *

Greene County Medical Society members met at the Freeman Greene County Hospital, at Linton, on January fourteenth for a dinner meeting. Dr. M. E. Tomak and Dr. William Craft, both of Linton, presented some interesting case reports. Eight members were in attendance.

* * *

Grant County Medical Society members held a meeting at the Marion General Hospital, at Marion, on January twenty-eighth. Dr. E. O. Daniels, of Marion, spoke on "The Interpretation of Sugar and Albumin in Urine." Thirteen members attended the meeting.

* * *

Huntington County Medical Society members met at the Hotel Lafontaine, at Huntington, on January sixth. A film was shown by Dr. T. M. Casey, of Huntington, on "Treatment of Burns." Fifteen members were present at the meeting.

* * *

Jennings County Medical Society members held a meeting at North Vernon, on January fifth. An election of officers was held.

* * *

Knox County Medical Society members held a dinner meeting at the George Field Post Hospital, at Vincennes, on January nineteenth.

* * *

LaPorte County Medical Society members met at the Spaulding Hotel, at Michigan City, on January twenty-first. Dr. R. L. Sensenich, of South Bend, spoke on "War and Medicine." Nineteen members attended the meeting.

* * *

Madison County Medical Society members held their January meeting at the St. John's Hospital, at Anderson, on the eighteenth. A round table discussion on virus pneumonia was the main topic of the evening.

Monroe County Medical Society members held a meeting at the Graham Hotel, at Bloomington, on January twenty-seventh. Commander Flower, M.C., of the Burns City Ammunition Depot, spoke on "Battle Experiences in the Pacific." Fifty-five members and guests attended this meeting. Guests were the dentists, pharmacists, and nurses of Monroe County.

* * *

Randolph County Medical Society members met at the Randolph County Hospital, at Winchester, on January fourth. Dr. L. G. Montgomery, of Muncie, was the speaker of the evening. His subject was "Pathological Heart Disease." Thirteen members were present at the meeting.

* * *

Tippecanoe County Medical Society members held a meeting at the Lincoln Lodge, at Lafayette, on January twelfth. Dr. David A. Boyd, Jr., of Indianapolis, spoke on "Mental Problems Now and After the War." Thirty members were in attendance.

WOMAN'S AUXILIARY to the Indiana State Medical Association

President—Mrs. Arnold H. Duemling, Fort Wayne
President-elect—Mrs. James W. Baxter, Jr., New Albany
Corresponding Secretary—Mrs. E. M. VanBuskirk, Fort Wayne
Treasurer—Mrs. C. E. Monk, Kendallville

The Board of Directors of the Woman's Auxiliary to the Allen County Medical Society held a recent luncheon meeting at the home of Mrs. E. M. Van Buskirk. During the luncheon small gifts were exchanged by the nine members present.

A detailed report of the state board meeting was given at the business meeting. New assignments, growing out of the state meeting, were made to the respective chairmen and officers. The treasurer's report showed a paid membership of eighty-four at that time. Twenty of our members are out of the city, with their husbands in military service.

Dr. Jessie C. Calvin is general chairman of the Civilian Defense Nutrition Program. Mrs. E. N. Mendenhall is chairman of the organization of neighborhood nutrition classes. Mrs. M. E. Glock is Mrs. Mendenhall's assistant in the organization work.

Mrs. Ray Chester is the library chairman. She is assisted by Mrs. J. R. Adams and Mrs. Ernest Carlo. The duties of this committee are to review books, current magazine articles and commercial literature that are placed on the nutrition shelf and reading table in our public library and the packets carried into the rural districts by the library busses. This material provides a source of material for teachers of neighborhood classes and club women preparing papers on nutritional subjects.

Mrs. A. C. Worley, chairman of a pediatric's project, has Mrs. Carl Moats, Mrs. Doster Buckner, Mrs. C. B. Parker, Mrs. Sterling Hoffman and Mrs. A. Jerome Sparks to assist her in providing toys and other recreational material for the children in the three hospitals.

Mrs. Noah Zehr, chairman of the auxiliary Red Cross activities in production—surgical dressings, sewing and administrative work—has a full calendar.

Mrs. Maurice R. Lohman was chairman of the auxiliary committee in the Minute Woman's Bond Sale campaign during Thanksgiving week. Her committee, composed of Mrs. S. R. Mercer, Mrs. N. H. Prentiss and Mrs. Noah Zehr, accounted for the sale of $21,000 worth of bonds, accredited to the auxiliary. This splendid effort made the auxiliary eligible to rate fourth prize in a big field of women's organizations.

Mrs. Edward Schlegel was city co-chairman of the County Minute Woman's Bond Sale. Mrs. Schlegel has just been appointed a member of the Executive Board of the County Bond Sale Committee.

The Woman's Auxiliary to the Sullivan County Medical Society met Wednesday, January sixth, at eight o'clock for a dinner meeting at the Kerlin Hotel in Sullivan, Indiana. Mrs. A. H. Duemling, state president, was the honor guest and there were sixteen members present.

Mrs. Duemling talked to the members, briefly. Sullivan County's organization is the baby organization of the state, and they were proud to have Mrs. Duemling with them.

The program for the evening was very interesting. Mr. James M. Walters of Carlisle was the speaker. For thirty-two years he was an engineer for the American Telephone and Telegraph Company in New York and contributed much toward telephone service through the laboratory of A. T. and T., and also did a great deal toward improving x-ray pictures.

We have received a copy of the *Year Book of the Allen County Medical Auxiliary* which should make all of us envious who do not edit such a publication. The two remaining programs for this year promise to be very interesting and enlightening to the members of the auxiliary in that county.

Tuesday, March 2, 1943

7:30 p.m.—Methodist Hospital. Co-chairmen, Mrs. B. M. Edlavitch and Mrs. Herman A. Meyer.
"Humor and Poetry in Medicine," Mrs. Alan R. Chambers and Mrs. N. L. Salon.
Current Events in Medicine, Mrs. Herbert A. Ray.

Tuesday, May 4, 1943

6:00 p.m.—Picnic supper in Indian Village Pavilion. Annual meeting and election of officers. Hostesses, the Program Committee.

Books

BOOKS RECEIVED

THE SIGHT SAVER. By C. J. Gerling. 202 pages. Cloth. Price $2.00. Harvest House, New York City, 1943.

ESSENTIALS OF GYNECOLOGY. By Willard R. Cooke, M.D., Professor and Head of the Department of Obstetrics and Gynecology, University of Texas. 474 pages with 197 illustrations, including 10 in color. Cloth. Price $6.50. J. B. Lippincott Company, Philadelphia, 1943.

THE RELATION OF CERTAIN ANOMALIES OF VISION AND LATERAL DOMINANCE TO READING DISABILITY. By Philip W. Johnston, Ph.D., Research Consultant, Massachusetts Department of Public Health. Monographs of the Society for Research in Child Development, Volume VII, No. 2 (Serial No. 32). 154 pages, including 31 figures and 63 tables. Paper. Price $1.50. Society for Research in Child Development, National Research Council, Washington, D.C., 1942.

ABSTRACT

INHERITANCE OF ALLERGIC DISEASE

"The exact mode of inheritance of allergy has been in dispute for years," *The Journal of the Americal Medical Association* for February 13 says in answer to an inquiry. "All investigators, however, agree that no single allergic disease is transmitted as such. That which is transmitted is the predisposition to allergic conditions—the tendency to become hypersensitive. The actual appearance of hypersensitivity depends mainly on environmental factors."

CONSUMERS BUYING WHITE BREAD SHOULD ASK FOR ENRICHED BREAD

"Consumers who buy white bread should demand enriched bread," *The Journal of the American Medical Association* for April 4 declares in an editorial on "Modern Bread." The editorial says:

"For some two years medical and nutritional scientists have discussed the nutritional significance of bread, lawyers have argued about regulations pertaining to flour and bread, advertising copy writers have written about the new enriched bread. Consumers apparently have continued to pay scant attention to the important changes that have been made recently in this basic food. The average American consumes each day about 6¼ ounces of white flour in various forms; to a large extent flour is used as white bread and other bakery products. This amount of flour will provide about one-fourth of the average daily caloric requirement. The amount of white pan bakers' bread consumed daily is sufficient to provide each man, woman and child in the country with 70 Gm. of bread each day, or approximately two and one-third slices weighing 30 Gm. each. Nearly all this bread is consumed without special regard to its nutritional value.

"Bread today is not the same as ordinary white bread of previous years. Now bakers use greater quantities of dried skim milk in the dough for all bread except Vienna style loaves. Rye bread and whole wheat bread also are ordinarily made without milk solids. If the skim milk solids are added at the rate of 6 pounds to each hundred pounds of flour (much of the white bread is now made with only half as much) the resulting white bread has almost the same riboflavin content

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MEDICINE—Two Weeks Intensive Course in Medicine starting June 7. One Month Course in Electrocardiography and Heart Disease starting the first of every month, except August.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course starting April 5.

GYNECOLOGY—Two Weeks Intensive Course starting April 5; Clinical and Diagnostic Courses.

OBSTETRICS—Two Weeks Intensive Course starting April 19; Informal Course.

OPHTHALMOLOGY—Two Weeks Intensive Course starting April 5.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting April 19.

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as whole wheat bread made with water. Such milk bread has appreciably more calcium, from the milk solids, than the wheat grain. The milk proteins also represent a significant contribution. Nevertheless, ordinary white bread, while it is a good food, does not supply as much dietetic value as nutritional experts consider a bread should provide.

"In a monograph entitled 'Modern Bread from the Viewpoint of Nutrition,' H. C. Sherman and C. S. Pearson discuss the fundamental characteristics of bread as food, the individual nutritional essentials of importance in wheat and in bread, and the progress that has been made toward improving bread. Whole wheat, say Sherman and Pearson, is an excellent source of iron, but about four-fifths of the iron of whole wheat is rejected in the milling of ordinary white flour. The grain is a good source of the vitamins of the B complex, especially of thiamine, but thiamine and riboflavin and niacin are largely lost in the milling of white flour. Recent work by Elvehjem, as yet unpublished, indicates that other factors of the vitamin B complex are rather uniformly distributed throughout the grain so that white flour and whole wheat flour are both fair sources of pantothenic acid and pyridoxine. Enriched bread will have a considerable portion of the original thiamine restored, and some of the niacin.

"There are three principal methods by which a baker can make enriched bread. One is by using enriched flour instead of ordinary flour. Another is by incorporating in the dough a concentrate of either milling products of wheat or an artificial preparation of the desired composition. Another method is to use a yeast which has enhanced nutritive value. By any of these methods a white bread indistinguishable from ordinary white bread is obtained or it may have a light creamy color or yellowish brown. Nutritionally it is far superior to ordinary bread. Enriched bread does not have some of the disadvantages of whole wheat bread, although the latter is recognized as a meritorious product. The disadvantages overcome are the higher amount of roughage in whole wheat bread, which some persons are not able to tolerate, and the difficulty of keeping whole wheat flour.

"The vast majority of Americans prefer white bread to dark bread. Enriched bread can be made to satisfy this wish without much sacrifice of nutritive values that are associated with the darker breads. In England nutritionally improved bread is made with flour of 85 per cent extraction, meaning that only 15 per cent of the wheat grain is not incorporated in the flour. Ordinary white flour represents about 70 per cent extraction of the grain. The British bread is fortified with calcium salts, which is an optional ingredient of American enriched bread.

"Each slice of either white, enriched or whole wheat bread will supply roughly about 15 Gm. of carbohydrate and 3 Gm. of protein, yielding about 70 calories. A slice of white bread will have about 0.02 mg. of thiamine, a slice of enriched bread will have about 0.07 mg., and a slice of whole wheat bread will have about 0.1 mg. of thiamine. Of niacin the amounts would be in each slice 0.2, 0.4 and 0.7 mg., the enriched bread again being intermediate in value between that of white bread and that of whole wheat bread. The iron content of the three products will be 0.1, 0.3 and 0.8 mg, respectively for a slice of white, enriched or whole wheat bread. These figures are based on the assumption that the enriched bread is of the minimum value that has been developed for this product. The tendency is definitely to aim toward the minimum rather than the maximum, which is four times more, or some intermediate value. Final standards for enriched bread have not yet been formulated by the Food and Drug Administration. It has been decided, however, that riboflavin, for which standards have been established for enriched flour, will not be required as an ingredient of that product until after the middle of the year 1942.

"Within recent years all the changes and improvements in this product have been toward the improvement of its nutritive quality. In the development of enriched bread, bakers have been guided by leading scientists and medical investigators. Sherman and Pearson observe that enriched bread may now safely be utilized to supply as much as 40 per cent of the calories of the normal diet, provided the greater consumption of enriched bread is at the expense of less nourishing foods. This is an important observation—bread is exceptional from the point of view of economy. More than ever before bread deserves to be called the staff of life."

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Monthly Report, January, 1943

	Jan. 1943	*Dec. 1942*	*Nov. 1942*	*Jan. 1942*	*Jan. 1941*
Tuberculosis, primary	2	2	0	16	0
Tuberculosis, active	106	870	74	147	84
Tuberculosis, arrested	5	7	13	8	0
Chickenpox	383	342	292	377	422
Measles	712	178	74	214	277
Scarlet Fever	479	195	189	516	488
Smallpox	49	20	8	14	8
Typhoid Fever	6	4	4	8	8
Whooping Cough	109	71	104	222	81
Diphtheria	27	24	30	50	51
Influenza	78	47	48	210	1547
Pneumonia	210	109	96	104	146
Mumps	291	189	131	124	132
Poliomyelitis	5	2	8	6	5
Cerebrospinal Meningitis	22	9	2	3	3
Trachoma	1	0	0	0	0
Tularemia	10	8	3	9	9
Vincent's Angina	25	23	7	0	0
Rubella	701	33	5	6	0
Undulant Fever	1	2	1	2	1
Rocky Mt. Spotted Fever	1	0	1	0	0
Septic Sore Throat	4	0	0	0	0
Rabies in Man	1	0	0	0	0
Encephalitis-Measles	1	0	0	0	0

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FACTORS IN THE MANAGEMENT OF CANCER OF THE UTERINE CERVIX

JOHN ALEXANDER CAMPBELL, M.D.*

INDIANAPOLIS

Cancer of the uterus is the commonest form of malignant disease arising in females. It represents about one-quarter of all malignant tumors occurring in women, and in 1938 it accounted for some 16,291 deaths in the United States. In the total number of cancer deaths it is exceeded only by malignancy of the stomach. Approximately 90 per cent of carcinoma of the uterus arises in the cervical portion. The remaining 10 per cent arises in the fundus.

Kamperman,[1] Kelly[2] and others have estimated the incidence of cervical carcinoma in gynecological patients at about 4 per cent. While rare cases are reported in children, and young women in the third decade of life are occasionally the victims of this disease, over 60 per cent of the cases occur between the fortieth and sixtieth years.

Etiology

Although the primary cause for individual susceptibility is not known, there is a general agreement relative to the contributing or exciting causes of cancer in the cervix. About 96 per cent of the women who contract carcinoma of the portio have had one or more children. In these women the cervical tissues have suffered lacerations and trauma during parturition, which, unless healing is complete, become the site of chronic inflammation and infection, leading later to erosion and hyperplasias of the tissues. Ewing feels that all cervical cancer is preceded by a varying period of chronic irritation of the normal structures, and Percival suggests that infectious erosion or irritation caused by the existence of mucous polyps is the preceding condition in the 4 per cent of nulliparae who develop this disease. Leukoplakia appears to be the connecting link between cervical erosion and carcinoma.

There is apparently no relationship between the number of pregnancies and the incidence of the malignancy except that each additional birth trauma affords another chance for the onset of chronic changes, which, in a person with the proper inherent susceptibility, may prove to be precancerous. Under the influence of some stimulus, such as chronic irritation from long neglected inflammation, the cancer process in some unknown way begins in a single cell of the basal layer of the epidermis of the portio.

In support of the preventive possibilities in control of cancer of the cervix are several rather impressive reports. Craig[3] quotes a series of 2,895 cases of endocervicitis in which the inflammation and erosion following laceration had been efficiently treated. In a follow-up of these cases over a period of ten years, there had not been a single case of carcinoma. Graves[4] found that in following up 4,815 cervical repairs, only four cases could be discovered that developed cancer in the repaired cervix at a later date. On the other hand, he noted that only 2 per cent of 538 cases treated for carcinoma of the cervix had had previous repair of the cervix. The same author states the following in analysis of his data: "The prime factors that enter into a dangerous chronic irritation of the cervix are eversion and erosion of the mucocutaneous border of the cervical lips, a stagnant and

* From the Department of Radiology, Indiana University School of Medicine and hospitals.

[1] Kamperman, G.: The Present Status of Treatment of Gyn. Cancer; With Special Reference to Results Obtained Since Introduction of Supervoltage Roentgen Therapy; Statistical Analysis of Results from 1922-1935, *Surg., Gynec., & Obst.*, **72**:384, 1941.

[2] Kelly, H. A.: Gynecology, D. Appleton-Century Co., Inc., New York, 1928.

[3] Craig, F. B.: Cancer of Cervix from Point of View of General Practitioner, *M. J. Australia* **1**:886, 1938. (Percival)

[4] Graves, William Philip: Textbook of Gynecology, W. B. Saunders & Co., Philadelphia, 1928.

infected leukorrheal discharge, malposition of the cervix that encourages abnormal friction, and incomplete drainage of some part of the genital canal." In addition, Saltzstein and Topsic report 1,850 cases of endocervicitis that had been properly treated, in which only 15 developed carcinoma.

Since 90 per cent of uterine cancer is in the cervix, and the relative incidence in unselected groups of adult gynecological patients is 4 per cent, we can assume that possibly as many as 115 cases of carcinoma of the cervix were averted in Craig's series, 188 in Graves', and 59 in Saltzstein's. These hypothetical figures are mentioned as means of emphasizing again the prophylactic possibilities in reducing the incidence of this type of cancer, and thereby effecting a corresponding reduction in the resulting death rate. This phase of preventive medicine takes on even greater importance when we consider that in grossly recognizable cancer of the cervix the limits of treatment by radiation therapy, according to our present knowledge, are already in sight.

Symptoms

The symptoms for which the patient usually consults her physician are intermenstrual, postmenopausal or other abnormal vaginal bleeding and vaginal discharge. These are symptoms of ulceration and infection, which in a fairly large group of patients we have found to be present for an average of six to ten months before the patient sought medical care. Many women are unperturbed by an occasional occurrence of irregular vaginal bleeding after the age of forty. Since there are generally no symptoms of early cervical carcinoma, and because the first symptoms of the disease cause a negligible amount of inconvenience to the victim, it is not surprising that 70 to 75 per cent of all cases are in an advanced stage of the disease when first seen.

Pain is an initial symptom in only about 5 per cent of the cases.[5] It appears when the tumor has invaded the parametrium, and in borderline or moderately advanced cases is frequently due to partial or complete obstruction of one or both ureters. In these instances the patient complains of pain or a nagging discomfort on the affected side, which may radiate upward towards the kidney; laterally into the hips or groin; posteriorly into the sacro-iliac or sciatic areas; and downward into the thigh and leg, either anteriorly or posteriorly.

Hemorrhage is the result of blood vessel rupture within the tumor mass. It occurs most commonly when the growth protrudes into the vagina, where it may be bruised by coitus, movements of the body, or straining at stool. For this reason cauliflower carcinomas give rise to hemorrhages, which disclose their presence much earlier than do the inverting endocervical types. Most bleeding is venous in type and can be controlled by pressure packing. Fatal hemorrhage is therefore quite rare. In women over forty years of age, Fluhman[6] has found cancer in 25 per cent of those complaining of acyclic premenopausal hemorrhage, and in 75 per cent of those complaining of postmenopausal hemorrhage.

Diagnosis

The most important factor in prognosis is the establishment of an early diagnosis. As Ewing[7] states, the early lesion is likely to show, (1) leukoplakic spots in a chronic erosion, (2) ulceration in the cervix, (3) a thickened cervix which is hyperemic and superficially eroded, (4) a papillary erosion with glandular overgrowth, or (5) a nodule deeply imbedded in the cervix and not visible on the surface. In its advanced stages the lesion, when first observed, exhibits, (1) an extensive induration and swelling of the cervix, (2) an excavated ulcer, or (3) extensive papillary or cauliflower outgrowths covering much of the canal and portio. In general, any friable tumor or granular or eroded lesion of the cervix, no matter how superficial, which bleeds easily on examination should be regarded as cancer until proved otherwise. The diagnosis should in every case be confirmed by histological study of a biopsy specimen.

In questionable early lesions, Shiller's[8] test is often helpful. The upper layers of cervical mucosa normally contain large quantities of glycogen, whereas carcinomatous tissue contains little or no glycogen. The test consists of swabbing the vaginal vault and cervix with several cc. of Lugol's solution of Gram's stain. After a half minute or more, the normal mucosa assumes a dark brown color, whereas the cancerous tissue remains unstained. To substantiate this finding a biopsy should be taken of the unstained part.

Carcinoma of the fundus probably more closely resembles carcinoma of the cervix, symptomatically, than any other condition, chiefly because 97 per cent give rise to abnormal bleeding. A curettage, therefore, should be done to obtain a tissue diagnosis when examination of the cervix proves negative.

Pathology

Analysis of the histology shows that about 97 per cent of all cases of primary cervical cancer are of the epidermoid carcinomas arising from the squamous cell epithelium of the external os or portio. The remaining 3 per cent are found to be adenocarcinomas of cervical gland origin. The epidermoid carcinomas are graded, after the work of Ewing, Broders and Healy, according to their general cell structure. Those most adult in char-

[5] Crossen, H. S., and Crossen, R. J.: Editors, Diseases of Women, 9th Edition, C. V. Mosby Co., 1941.

[6] Liljencrantz, Eric: Cancer Handbook, Stanford University Press, 1939.

[7] Ewing, James: Neoplastic Diseases, W. B. Saunders Co., 1940.

[8] Shiller, W.: Clinical Behaviors of Early Carcinoma of the Cervix, *Am. J. Ob. and Gyn.* **35**:17, 1938.

acter, showing frequent pearl formation, are grade I. Those showing most change from the normal, embryonal and anaplastic in character, are grade III, while those showing a plexiform arrangement and cell characteristics midway between these groups are grade II. Of all cervical cancer, about 15 per cent are adult types, 15 per cent are anaplastic in structure, and over 60 per cent are classified as grade II.

Spread

The modes of extension in cancer of the cervix may be classified into four groups in order of their frequency, (1) by direct continuity of tissue, (2) by lymphatics, (3) by the blood stream, and (4) by implantation. It attacks primarily by local invasion and destruction of the immediately surrounding pelvic structures. The infiltration will almost invariably progress into the parametrium, the vaginal vault, and the rectal and vesical septa before dissemination by the other routes occurs. This factor largely accounts for the greater degree of curability of the disease during the early stages of involvement.

Local lymphatic extension into the regional pelvic lymph nodes occurs in a high percentage of the more advanced lesions. Blood-borne metastasis and implantation occasionally develop, but in most cases the cancer tends to remain localized in the immediate vicinity of its origin and is frequently discovered at autopsy to be confined entirely within the true pelvis.

Clinical Classification

In order best to forecast the prognosis and plan the most appropriate treatment in any individual case, it is desirable to determine the anatomo-clinical extent of the growth. In this regard it is wise to follow the criteria for classification adopted by the Cancer Committee of The League of Nations, namely:

Stage I. The cancer is limited strictly to the cervix uteri and the uterus is mobile.

Stage II. Extension of the cancer into one or more fornices with or without infiltration of the parametrium, the uterus retaining some degree of mobility.

Stage III. (a) Nodular infiltration of the parametrium on one or both sides, extending to the wall of the pelvis with limited mobility of the uterus, or massive infiltration of one parametrium with fixation of the uterus.
(b) More or less superficial infiltration of a large part of the vagina, although the uterus may be mobile.
(c) Isolated metastases in the pelvic lymph nodes with a relatively small primary tumor.
(d) Isolated metastases in the lower part of the vagina.

Stage IV. (a) Massive infiltration of both parametria extending to the walls of the pelvis.
(b) Carcinoma involving the bladder or rectum.
(c) Entire vagina infiltrated (rigid vaginal passage) or one vaginal wall infiltrated along its whole length with fixation of the primary cancer.
(d) Remote metatases.
(e) Frozen pelvis.

In addition to this, it has been our practice at the university hospital to group patients as I to IV, according to the degree of general morbidity present. In this way any constitutional factors directly or remotely associated with the disease which may alter the plan of treatment or response thereto are brought into consideration.

Treatment

The treatment of choice in carcinoma of the cervix is now generally acknowledged by all gynecologists to be strictly a radiological problem. Before the introduction of radiation therapy the Wertheim radical panhysterectomy yielded the best results. But this procedure has proved ineffectual for several important reasons. Only very early or borderline cases are surgically operable, so that the prognosis for even moderately advanced cases becomes hopeless. Secondly, the Wertheim operation, even in the hands of experts, carries a mortality of from 20 to 30 per cent. The absolute cure rate by Wertheim himself was less than 19 per cent, with an operative mortality of 19.5 per cent. Bonney,[9] who has performed more Wertheim operations than any living man, is particularly skillful in this most difficult and extensive procedure. His cases are limited to stage I and II lesions from which his absolute five-year survival rate is not as favorable as in similar groups treated by adequate radiation. He also has a substantial operative mortality rate as compared with practically none by radiologic methods.

There is a definite statistical balance of the cure rate in favor of irradiation therapy. The crucial point of attack is not in the uterus itself, but the cancer cells of the parametrium and along the pelvic wall. It is these outlying cells that must be reached and destroyed, or recurrence is certain. Irradiation is the most successful means in attaining this objective and, therefore, rescues many patients who have passed far beyond the operative stage. To be effective, however, radiation must be intensively carried out at the first attempt. Repeated incomplete treatments seldom succeed in controlling the disease, due to ever-increasing

[9] Bonney, Victor: *J. Obst. & Gyn. Brit. Emp.*, 48:421-435, (Aug.) 1941.

radio-resistance, vascular diminution, and fibrosis in both the normal and abnormal tissues.

The aim of present-day therapy is to deliver a devitalizing dose of radiant energy to the local cancer and its direct or metastatic extensions without effecting serious or irreparable damage to the surrounding normal tissue. Experience teaches that the therapist must exercise expert judgment in applying his dosage, so that in his enthusiasm to eradicate the cancer entirely he does not cause morbidity from treatment which is more incapacitating than that which might be expected from the incompletely controlled disease itself. At the same time, the operator should not allow the fear of undesirable radiation sequelae to cause him to become unduly conservative, lest his treatment be ineffectual in reaching the distal crucial zone.

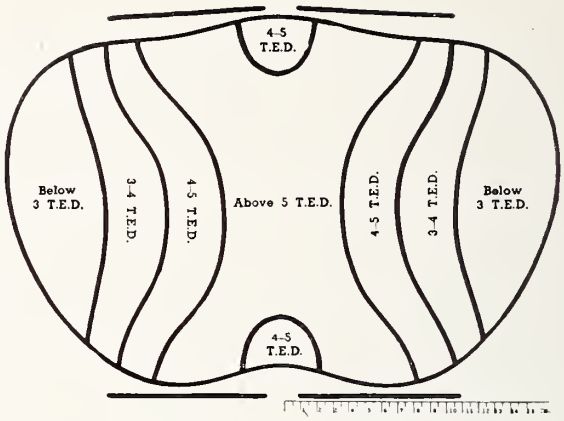
Best results are obtained by using a combination of x-ray and radium therapy in appropriate proportions to fit the individual case. No single method is suitable for all cases, but in most instances there are certain advantages to be gained if treatment is begun with external pelvic x-ray therapy. By this means the amount of secondary infection which is always present in the lesion will be reduced, which, in turn, will lessen the local reaction from radium applied later. The preliminary x-ray therapy will also produce regression and shrinkage in the size of the primary tumor; it will control bleeding and permit recuperation of the patient so that she tolerates radium better; and it will attack the cancer cells in the uterus, adnexae, and along the pelvic wall.

The external irradiation should be given by the use of high voltage apparatus which delivers highly filtered short-wave length x-rays, so as to provide the highest possible depth-dose percentage. The treatment is given through two anterior, two posterior and often two lateral pelvic ports in such a manner as to cross-fire the parametrium with a minimum amount of radiation falling upon the bladder and rectum. Moderate fractionated doses are applied to one or more areas daily over a period of three to six weeks until skin tolerance is reached. There are, of course, many variations of this procedure, but they are all aimed at delivering as many tissue erythema doses into the true pelvis as can safely be tolerated by the overlying and surrounding normal tissues (Figure I). Recently, the addition of perineal and transvaginal portals of entry have aided in raising the total dosage through the lesion.

Since it is impossible to administer sufficient total tissue dosage to kill pelvic cancer by x-ray therapy alone, without producing irreparable damage to normal structures, a local application of radium is made to the tumor immediately upon termination of the pelvic cycle. By this means the local intensity of dosage to the lesion is tremendously increased[10] (Figure II).

[10] Healy, W. P., and Arneson, A. N.: Radiation Treatment of Cancer of Cervix, *Am. J. Roent.*, **32**:646, (Nov.) 1934.

FIGURE I.



*Distribution of threshold erythema doses within the average female pelvis obtained with heavy fractionated surface doses of roentgen rays, given through four 15x10 cm. portals and carried up to skin tolerance. These doses may be sufficient to check the growth of cervical cancer but rarely, if ever, actually to cure it.**

Although the methods vary according to the amount of radium intensity used and the length of time during which it is applied, the results are remarkably uniform. The commonest method in this country consists in the use of surface radiation in the form of intrauterine and intravaginal applicators, containing a combined total of from 60 to 100 mgs. of radium or radon. A total filtration equivalent to from 1.5 to 2.5 mm. of platinum is used in order to obtain homogeneous gamma radiation. The total dosage usually varies between 4,000 and 6,000 mg. hrs. divided between the uterine canal and the lateral fornices of the vaginal vault. This is often given in a single treatment, but preferably is divided into two or more equal applications. This amount is usually sufficient for stage I and II cancers.

The type of application and amount of dosage depends upon the clinical stage of the disease and the individual requirements based on the calculated minimum tissue dose necessary to control the lesion. Arneson and Stewart[11] have determined that control of the disease in carcinoma of the cervix requires a minimum of from six to eight threshold erythema doses delivered into all cancer-infested areas by combined x-ray and radium therapy. Relatively few patients are cured when some portions of the tumor receive less than three threshold erythema doses. Due to the enormous loss of intensity within a few millimeters of a given source of radium, the intrauterine tandem will often not control disease located at distances greater than 3 or 4 cm. from the cervical canal.[12] Kaplan[13]

* Courtesy of Drs. W. P. Healy and A. N. Arneson, reprinted from *American Journal of Roentgenology and Radium Therapy*, **32**:652-3, (Nov.) 1934.

[11] Arneson, A. N., and Stewart, F. W.: Clinical and Histological Changes Produced in Carcinoma of The Cervix by Different Amounts of Roentgen Radiation, *Arch. Surg.*, **31**:542-567, (Oct.) 1935.

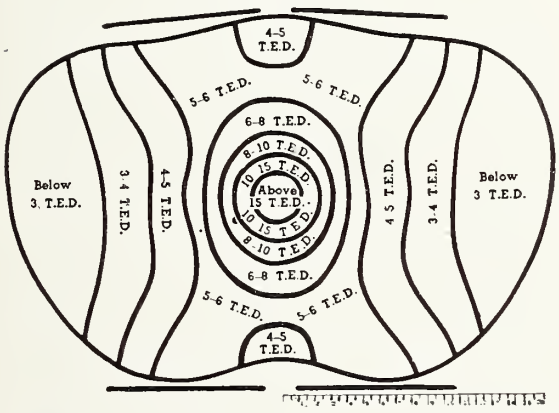
advocates, therefore, that up to 8,000 mg. hrs., using about 70 mg. of radium, is often required to control the cancer in some stage II and III cases. He gives 40 per cent of this total dosage by means of intrauterine-applicator and the remaining 60 per cent of the dosage intravaginally by means of colpostats.

In stage IV palliative measures alone are advisable, and from 3,000 to 4,000 mg. hrs. of radium may be sufficient to end bleeding and superficially heal the local ulceration. Radium therapy is many times contraindicated in stage IV cases showing severe cachexia, anemia, rectal and vesicle fistulae, foul necrotic pelvic inflammatory disease, and far-advanced urinary tract involvement.

Pitts and Waterman[14] use low-content interstitial needles in the paracervical and parametrial tissue to effect a better distribution of radiation in the tumor-bearing region. The absolute survival rate by this method is among the best reported, but the procedure is not generally accepted due to the chance of critical sequelae.

The incidence of cancer in the cervical stump following supravaginal hysterectomy is about 1 to 3 per cent.[15] True cases are those developing within two or more years after surgery. Heavy filtration of the radium and lower total dosage is advisable because of the proximity of the intestine. If the surgeon has left a flap of uterine tissue covering the internal os, a larger and therefore more effectual radium dose may be given safely. If a small tube can be secured in the short cervical canal, a dose of 1,000 mg. hrs. supplemented by 3,000 mg. hrs. in the vaginal fornices is usually given. The absolute five-year survival rate is lower than in those cases with the uterus intact.

FIGURE II.



*Distribution of threshold erythema doses in the average female pelvis obtained with roentgen radiation, as shown in Figure I, combined with a total radium dosage of 4,500 to 5,000 mg. hrs., given by intrauterine and vaginal applicators. Even relatively radio-resistant cancer lying within the 6-8 T.E.D. radius is likely to be destroyed by attainment of these intensities.**

*Courtesy of Drs. W. P. Healy and A. N. Arneson, reprinted from *American Journal of Roentgenology and Radium Therapy*, **32**:652-3, (Nov.) 1934.

General Considerations

Ureteral obstruction in varying degree from parametrial extension about the ureterovesical junction is the most frequent lethal complication since, if unchecked by therapy, it leads to hydronephrosis, pyelonephritis and uremia. Cystoscopy, ureteral catheterization, and pyelograms are valuable procedures in the therapeutic evaluation of this condition.

Anemia is an ever-present complication resulting from hemorrhage and general debilitation associated with the disease. It is best treated by repeated blood transfusions and iron therapy.

Rectovaginal and vesicovaginal fistulae occur rather frequently in the late stages of uncontrolled cancer and are often associated with rectal stricture, necrotic sepsis in the pelvis, and peritonitis.

The duration of carcinoma of the cervix is variable, the limits ordinarily being from one to three years in untreated cases. It depends upon the histological grade of the tumor, upon the age of the patient, and often upon the proximity to childbirth.

In recurrent disease, treatment is generally restricted to judicious use of x-ray, and occasional small, local applications of radium. The interval following previous therapy should preferably be a year or more. Cure should not be attempted and smaller doses must be used. It is well to remember that treatment of local recurrence may often do more harm by injuring the patient's natural resistance than it does good by killing cancer cells.

Results of therapy are best evaluated by use of the absolute five-year survival rate. This is determined by taking the total number of patients seen or examined as the denominator, and the actual number alive at the end of five years as the numerator. The use of this method strips the analysis of all qualifying factors and permits a more accurate comparison of statistics. Reports from various sources in recent years show that about 25 to 30 per cent absolute five-year survivals can be expected from present-day radiation methods in carcinoma of the cervix. Healy[16] reported a series of 551 cases in 1937, at the Memorial Hospital in New York, which showed an absolute five-year survival of 27.7 per cent. A breakdown of his cases to show the relation of the five-year arrests to the

[12] Arneson, A. N.: The Distribution of Radiation within the Average Female Pelvis for Different Methods of Applying Radium to the Cervix, *Radiology*, **27**:1-20, (July) 1936.

[13] Pack, G. T., and Livingston, E. M.: Treatment of Cancer and Allied Diseases, Paul B. Hoeber, Inc., 1940.

[14] Pitts, H. C., and Waterman, G. B.: The Treatment of Cancer of the Cervix Uteri at the Rhode Island Hospital, *Surg., Gynec. & Obst.*, **64**:30-38, 1937.

[15] Meigs, J. V.: Cancer of the Retained Cervix or Subtotal vs. Total Hysterectomy, *Am. J. Obst. & Gyn.*, **31**:358-366, (Jan.) 1936.

[16] Healy, W. P., and Frazell, E. L.: Methods and Results of Treatment in Carcinoma of the Cervix at Memorial Hospital, *Am. Jr. of Obst. & Gynec.*, **34**:593-606, (Oct.) 1937.

clinical stages of the disease when treated is given below.

League of Nations	*Clinical*	*No.*	*% Total*	*Lived 5 or more years* *No.*	*%*
I	Early	86	15.5	50	58.1
II	Borderline	78	14.2	30	38.4
III	Advanced	308	55.9	68	22.0
IV	Palliative	79	14.4	5	6.3
	Totals	551		153	27.7

Conclusions

All carcinoma of the cervix passes through a stage when it is theoretically 100 per cent curable by our present-day methods of treatment. This is the working hypothesis upon which the future control of the disease should be based. Reliable authorities[17] have already reported that as many as 80 per cent of their stage I cases are free of cancer five years following adequate treatment. Great improvement in the end results will be obtained only when we are successful in bringing an increasing percentage of stage I cases under treatment. The most important single factor in this respect is the establishment of an early diagnosis.

Some improvement in the end results will occur when our patients report more promptly for examination with the onset of symptoms of discharge or bleeding. But our end results will show marked improvement if we are able to establish a diagnosis before symptoms are evident. To do this patients must be instructed to report for careful pelvic examination at regular intervals following parturition or miscarriage, and at twice yearly intervals after their fortieth year. As a prophylactic measure, cure of all inflammatory lesions of the cervix is imperative. The use of local repair and cauterization on any postpartum cervix which shows erosion, eversion, or cystic changes will prevent the development of many cancers which occur in later life.

[17] Schmitz, H.: Radiation Therapy in Carcinoma of Uterine Cervix, *Radiology*, **23**:548, 1934.

ABSTRACT

JOURNAL HAILS SUCCESS OF THE CONGRESS ON MEDICAL EDUCATION AND LICENSURE

Outlining the highlights of the statements made by high officials of government agencies and the Army and Navy before the thirty-ninth Annual Congress on Medical Education and Licensure, held in Chicago February 15-16 under the sponsorship of the Council on Medical Education and Hospitals of the American Medical Association, *The Journal* of the Association says in its February 27 issue that the Congress "was one of the most successful ever assembled. Indeed the results establish the necessity of the assembly in wartime. . . .

"American medicine has performed remarkably in meeting the demands placed on it for the war effort. The officials of the government and officers of the armed forces who have been charged with the task of providing for medical care have been sympathetic to the needs of medical education and of civilian medical practice. The accomplishment of the Council on Medical Education and Hospitals in providing at this congress statements from authoritative sources as to present plans and changes contemplated for the future in medical education and in medical practice merits the appreciation particularly of medical educators, since it stabilizes definitely a situation full in recent months of apprehension and doubts."

PHYSICAL TRAINING OF SOLDIERS IN COLLEGE MUST BE SECONDARY

The intensity and amount of exercise for the soldier-student under the new educational program to be inaugurated by the armed forces should be subordinated to the intellectual training if the essential purpose of the plan is to be realized, *The Journal of the American Medical Association* for February 13 declares in an editorial on "Intellectual Workers and Physical Exercise," *The Journal* says:

"Few studies have been made to determine the amount and nature of physical exertion which is optimal for those in sedentary occupations involving primarily concentrated and prolonged activities of the higher mental centers. Observation leads to the conclusion that most persons engaged in intellectual occupations take too little physical exercise for maximum health: most medical students, for example, are inclined to indulge little or not at all in physical exercise. Those engaged in intellectual endeavors report that strenuous exertion (usually when they are not used to it) results in an appreciable decrease in ability to make constructive intellectual efforts during the immediately subsequent hours or even days. Although such observations cannot be used as scientific evidence, the problem of balancing physical conditioning with maximum intellectual output is particularly pressing today, when the curriculums of schools devoted to advanced education are being modified to include conditioning for military service.

"The armed forces plan to induct all physically fit boys eighteen years of age or older. By methods of selection which have not yet been announced in detail a number of these young men will be selected to attend colleges and universities. While attending these institutions they will be expected to engage in strenuous and prolonged intellectual endeavors. During this period they are to be paid and housed by the armed service involved and will be just as much in the military service as those in camp or at the front. They will be required, no doubt, to take certain physical hardening courses and sports, probably provided for specifically by the respective service involved.

"Good physical condition is favorable rather than detrimental to intellectual work. Nevertheless, the primary purpose of placing these soldiers in colleges and universities rather than at the battle fronts is to give them the intellectual training which they can receive only from the former source. The physical 'conditioning,' therefore, is the secondary rather than the primary consideration. The intensity and amount of exercise for the soldier-student should be subordinated to the intellectual training. In determining the amount of exercise required of soldiers in colleges and universities, cognizance must be taken of individual variability and of the hours and nature of mental concentration required. The program of physical training of student-soldiers must be carefully controlled with a view to determining the best combination. If the physical training interferes with the maximum utilization of the educational facilities, the major purpose of the announced program will have been hindered."

THE PRESENT-DAY STATUS OF COMBINED BLOOD-PLASMA BANK, WITH REFERENCE TO THE USE OF CONCENTRATED RED CELL SUSPENSIONS*

(Operation and Use in a Medium-Sized Hospital)

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TERRE HAUTE

The development of practical methods of blood storage and blood preservation, while attempted during World War I, is based on the more recent studies of Russian investigators, including the use of cadaver blood. The first blood bank was organized in Leningrad by Filatov and Depp in 1932. The word "blood bank" was coined by Fantus, who probably established the first blood bank in the United States, at the Cook County Hospital, Chicago. Out of the studies on preserved blood in blood banks came the further development—the birth of plasma banks. The recognition of the life-saving value of plasma transfusions rightly belongs to epoch-making events in the history of medicine. Its military significance cannot be overestimated, but civilian needs for readily available plasma are also great. While the operation of a blood bank is not suitable for small or medium-sized hospitals, a plasma bank or, better, combined blood-plasma bank should be maintained in all institutions which aspire to keeping pace with the progress of medicine.

A survey on blood and plasma banks in Indiana, made by the American Hospital Association at the request of the Office of Civilian Defense last year, revealed that only twenty-five out of one hundred thirty-five hospitals, sanatoriums and related institutions reported maintaining a plasma bank, and sixteen hospitals reported blood and plasma banks. In three instances a plasma bank was being organized.

A wider establishment of plasma banks in Indiana, and possibly creation of district plasma banks where smaller institutions do not maintain individual banks, is indicated.

Extensive literature, including two excellent monographs[1,2], is available on the preparation of plasma, operation of the bank, et cetera, but one who is not familiar with the technical side of the subject will be confused by the large variety of available methods for collection, preparation and preservation of plasma. Great divergence of opinion exists as to the collecting equipment, strength and amount of anticoagulants, methods of separation of plasma, dilution or pooling, use of bacteriostatic agents (antiseptics), bacteriologic control, best way of storage, et cetera. The question whether human plasma is preferable to human serum is also not yet definitely settled, although the vast majority of banks in this country utilize plasma.

It is the purpose of this paper to discuss the experience of a combined blood-plasma bank in a medium-sized hospital, and to outline the present-day status of the problem. It is hoped that this may prove helpful in the wider establishment of new plasma banks, and better utilization of the existing ones.

ORGANIZATION

Our plasma bank was organized in a general hospital with a capacity of 189 beds and 27 bassinets (Union Hospital of Terre Haute). The responsibility for operation of the bank is vested in one person, who is the pathologist and director of laboratories and who is assisted by a nurse-medical technologist and a full-time technical assistant. The bank is located in a special room on the same floor as the departments of surgery and pathology. The operation of the bank was started with volunteer donors of the hospital staff, and was easily maintained by replacements from friends and relatives of the patients, as well as by volunteer donors from various groups. A considerable percentage of these donors were women who signed up for civilian defense work. The usual hour of collection is at noon, and the donors are instructed to restrain from food intake for the preceding four hours. A light breakfast, consisting of non-fatty fluids (tea or coffee without milk or cream), fruit juices, water, and bread without butter is permissible. A consumption of alcohol is to be avoided. After a brief physical examination and inquiry into diseases transmissible by transfusion (syphilis, malaria and others) the donors are requested to sign a written release and are made ready for venipuncture. The collection of blood and preparation of plasma are done in a strictly closed system. All requests and requisitions from the bank are made in written form. A special transfusion record, to be filled out by the nurse or attending physician, is given with each requested blood and is to be returned to the director of the plasma bank. A completed record card from each donation or replacement is kept on file, and detailed bookkeeping is established for all phases of plasma bank operation.

COLLECTION OF BLOOD

The preparation of the donor's skin is extremely important because the improperly prepared skin constitutes the most likely source of plasma con-

* Report of Blood-Plasma Bank of the Union Hospital, Terre Haute.

[1] Kilduffe, R. A., and DeBakey, M.: The Blood Bank and the Technique and Therapeutics of Transfusions, p. 558. C. V. Mosby Co., 1942.

[2] Blood Substitutes and Blood Transfusion. (Edited by S. Mudd and W. Thalhimer), Charles C. Thomas, p. 407, 1942.

tamination. A preliminary cleansing with soap and water is essential. The choice of the antiseptic for skin preparation is probably less important than rigid adherence to aseptic technic. We prefer to use 7 per cent tincture of iodine. A member of our plasma bank staff is always present at the time of collection, assisting the physician on duty. For collection of blood we use the Baxter equipment, which has answered our needs in all respects. We believe that a homemade equipment is neither economical nor practical for a small or medium-sized hospital. The blood is collected into a transfuso-vac or centri-vac bottle containing either 70 per cent of 2.5 per cent sodium citrate in physiologic saline[3] or 500 cc. of dextrose-citrate-saline mixture for the preparation of dilute plasma (Alsever's method)[4]. After withdrawing the desired amount of blood (usually 500-550 cc.), the needle is removed and the blood remaining in the donor's set is emptied into a dry test tube for serologic examination. This includes determination of the blood group and the performance of a sensitive flocculation test for syphilis, e.g., Mazzini flocculation test. The blood is permitted to stand at room temperature for one to two hours before placing it into the refrigerator for sedimentation. It is our impression that the standing of the blood at room temperature for one to two hours before refrigeration results in a better clearing of the plasma from the cells underneath the rubber stopper of the bottle, and less hemolysis.

PREPARATION AND PRESERVATION OF PLASMA

Two methods are available for the preparation of the plasma: centrifugation and sedimentation. The advantages and disadvantages of the centrifugation method will not be discussed here since the present situation makes it impossible for any hospital not specifically designated by the Office of Civilian Defense to obtain the new blood plasma centrifuge, or a similar model, without which the centrifugation method is neither economical nor advisable. We, therefore, had to abandon the centrifugation method and substitute the sedimentation, which proved quite satisfactory, although the total yield of plasma is about 25 per cent less.

The blood is kept in the refrigerator and is permitted to sediment in the vacuum container for five days in the case of citrated blood, and twelve to fourteen days in the case of blood collected into dextrose-citrate saline mixture. During this period of sedimentation the blood can be easily converted for use as whole blood by gentle agitation. At the end of the period, the plasma is aspirated with the Baxter aspirating set. The same aspirating needle, which should be protected by a Penrose tubing or similar material, can be safely used for six to eight aspirations provided the strictly aseptic technic is followed. The undiluted plasma is aspirated into a pool bottle (usually a 1,000 cc. bottle). The consensus is that pooling of plasma is desirable in order to decrease the iso-agglutinin contents, to render the product more uniform and to achieve the necessary bacteriologic control with a minimum of cultures. But there is a great variation in the size of the pool as used in various institutions, and the number of pooled specimens varies from as little as two to as many as seventy-two. The pooling of a large number of specimens is neither practical nor advisable for the average hospital plasma bank. We usually pool four to five specimens, preferably consisting of at least three blood groups. The titers of iso-agglutinins of our pooled plasma, as determined with a sensitive technic (Davidsohn), on thirty consecutive unselected pools and reported in terms of final dilution, were as follows:

Anti-A agglutinin: 0 to 56, the average titer being 10.

Anti-B agglutinin: 0 to 56, the average titer being 24.

The details of this study will be reported elsewhere, but it should be pointed out that from available evidence these titers are low enough to be safely ignored as a possible cause of post-transfusion reactions.

When aspirating plasma into the pool bottle, we do not attempt to pool completely cell-free plasma. The presence of a small number of red blood cells is of advantage: the agglutinogens introduced with the red cells help to neutralize the iso-agglutinins of the plasma, and the red cells will be found at the bottom of the pool bottle after twenty-four to forty-eight hours, so that practically cell-free plasma with a low agglutinin content can be aspirated into the final containers. If the pool consists predominantly of Group O plasma, a somewhat larger number of red cells containing A and B agglutinogens will be required for a better neutralization of Anti-A and Anti-B agglutinogens in Group O plasma. But an excessive number of erythrocytes in the pool should be avoided.

After pooling of the plasma is completed, about fifteen to twenty cc. are withdrawn and 5 cc. of plasma cultured on Brewer's thioglycolate medium, using large tubes containing thirty to forty-five cc. of medium. The medium has proved very satisfactory and permits a cultivation of anaerobic and aerobic bacteria without a special equipment. The cultures are incubated for ten to fourteen days at 37° C. A total protein determination by the falling drop technic is carried out on the sample of pooled plasma, and a pilot bottle of at least 5 cc. is saved from each pool for any possible control tests in the future.

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[3] Elliott, J.: Improved Technic for the Preparation of Blood Plasma, *South Med. and Surg.*, **104**:390-397, (July) 1942.

[4] Alsever, J. B., and Ainslie, R. B.: A New Method for the Preparation of Dilute Blood Plasma and the Operation of a Complete Transfusion Service, *New York State J. of Med.*, **41**:126-135, (January) 1941.

The bacteriologic control of the plasma is exceedingly important. One should keep in mind that citrated human plasma, with or without dextrose, is an excellent culture medium, and that plasma kept in the liquid state for some time shows a progressive flocculation which may be mistaken or may mask a true bacterial contamination. The addition of any antiseptic to the plasma is a highly controversial matter. Many authors, particularly in England, feel that the addition of an antiseptic has so many potential disadvantages and offers so little protection that it is not worth while using. Merthiolate, the most widely used antiseptic in this country, has not withstood the initial expectations. We decided on the use of sodium sulfathiazole in 0.2 per cent concentration, as suggested by Novak,[5] but we place no particular reliance on its bacteriostatic effect. Meleney and Johnson, in a very careful and important study on bacteriologic control of plasma preparation, came to the following conclusions: "At present, to the best of our knowledge, there is no preservative which, when added to human plasma or serum, will insure the sterility of the final product. The best safeguard for the sterility of these blood substitutes is filtration through bacterial filters.[6] Quite recently Bushby and Whitby[7] in England, described a new method for large-scale production of sterile non-clotting plasma, using a filtration process with preliminary alkalinization and subsequent adjustment of the ph. by carbon dioxide. This method may prove very valuable.

FIGURE I.

Freezing cabinet for preservation of plasma in the frozen state.

Our experience, and that of others, indicates that with strict adherence to aseptic technic of blood collection and use of a strictly closed system the contamination of plasma can be practically eliminated, particularly if the product is to be preserved in the frozen state. The preservation of plasma in the frozen state, as recommended by Strumia,[8] and others, appears to be the method of choice for the average plasma bank. A small amount of plasma can be kept in the liquid state for immediate use, but the bulk should be preserved in the frozen state. It has been conclusively shown that there is a marked loss of prothrombin and immune bodies in the plasma kept in the liquid state, but that freezing excellently preserves the more labile elements of the plasma. Bacterial growth in plasma kept in the refrigerator is retarded but not prevented, whereas the freezing completely eliminates a bacterial contamination and possibly has a sterilizing effect in case of minor bacterial contamination. The diluted plasma in dextrose shows less flocculation, but, at least for reasons of safety, it should also be preserved in the frozen state. In our plasma bank we use a freezing cabinet of 13.2 cu. feet capacity, consisting of eight separated compartments and maintaining a temperature of —20° C to —30° C. (see Fig. 1).* The plasma is frozen in the slanting position, in either 300 cc. centri-vacs (pooled plasma) or in 500 cc. plasma-vacs (diluted plasma). The freezing of 250 cc. of plasma requires one and one-half to two hours. In order to prevent breakage of the bottles of plasma during freezing, the containers should not be filled to the top—250 cc. plasma in 300 cc. containers proved to be satisfactory. The following essential technical points should be observed, as recommended by Strumia and McGraw.[9]

1. The freezing should be fairly rapid, requiring not more than three to four hours.
2. The storage-temperature should be at a safe level below freezing.
3. The thawing of the frozen plasma should be done in a water bath at 37° C., with occasional gentle agitation. This process should not require more than twenty to twenty-five minutes.

Plasma properly frozen and properly thawed is clear and indistinguishable from the original fluid. If kept at room temperature, it preserves this appearance for at least a few days. If no freezing cabinet can be made available, arrangements should be made with a local frozen-food or ice-

[5] Novak, M.: The Use of Sulfonamide Derivatives as a Solution of the Problem of Bacterial Contamination, *J.A.M.A.*, **118**:573, (Feb.) 1942.

[6] Johnson, B. A., and Meleney, F. L.: Bacteriological Control of the Preparation of Plasma, Chapter XXVII, Blood Substitutes and Blood Transfusion (2). Charles C. Thomas, 1942.

[7] Bushby, S. R. M., and Whitby, L. E. H.: Certain Properties of Plasma with a New Method for Large-scale Production of a Non-clotting Product, *J. Royal Army Med. Corps*, **78**:255-259, (June) 1942.

* This freezing cabinet is no longer available.

[8] Strumia, M. M., and McGraw, J. T.: Preparation and Preservation of Human Plasma: III Freezing of Plasma and Preservation in the Frozen State, *Am. J. Clin. Path.*, **11**:388, (May) 1941.

[9] Strumia, M. M., and McGraw, J. T.: Chapter XI in Blood Substitutes and Blood Transfusion (2). Charles C. Thomas, 1942.

cream plant to store the plasma in one of their cabinets. The preservation of plasma in the liquid state for a longer time is to be discouraged.

CONCENTRATED RED-CELL SUSPENSIONS
(Erythrocyte Concentrates)

The most important by-product of our plasma bank is the concentrated red-cell suspension (erythrocyte concentrate). It is usually taken for granted that the waste of red cells of the plasma bank is unavoidable. But at this time, less than ever before, can we afford to waste any valuable material.

The remaining red blood cells of the plasma bank can be put to a fully satisfactory use as concentrated suspensions. It seems that in some institutions, particularly in England, such concentrated suspensions are being used, but the medical profession at large is unaware of the advisability, safety or value of such transfusions. The method of preparation of concentrated suspensions, as described by the English authors MacQuaide and Mollison in 1940, is relatively simple but possesses several disadvantages. The pooling of blood from several bottles disrupts the absolutely closed system of plasma bank and introduces a chance of contamination. The removal of "leukocyte gel" by aspiration was found to be impractical.

We prepare red cell suspensions according to the following simple method: if blood is collected into a vacuum bottle containing only citrate solution, 25 cc. of a 50 per cent dextrose are slowly added with a syringe for better preservation of the red cells immediately before placing the bottle into the refrigerator. This gives an approximate dextrose concentration of 3 per cent, as recommended by DeGowin and his co-workers.[10] The use of hypertonic dextrose may be criticized, but we found it quite satisfactory. The contents of the various bottles are not mixed with each other. The bottles are kept in the refrigerator until used. Before use they are carefully inspected for evidence of hemolysis in the remaining small amount of supernatant fluid. In all questionable cases a hemolysis test is performed. If negative, 25 cc. of physiologic saline may be added immediately before transfusion to insure a more rapid flow of the rather thick suspension, but a satisfactory flow is usually present without this. The addition of a larger amount of saline, or even replacement of aspirated plasma with normal saline, is inadvisable as it results in an increased erythrocytic fragility and rather marked hemolysis. The explanation for this lies probably in the fact that the citrate-saline or dextrose-citrate-saline solution into which the blood was originally collected is slightly hypertonic, and red cells stored in such fluids become hypertonic to normal saline.

During the past year we have used concentrated red cell suspensions in various anemic states with fully satisfactory clinical and hematologic effects and no untoward reactions whatever. The maximum period of storage with dextrose as a preservative was three weeks. A suspension prepared from 500 cc. of whole blood usually raises the hemoglobin contents by 12 to 15 per cent, considering the fact that the initial rise of hemoglobin is influenced by many other factors. I suggest designating as a unit of erythrocyte concentrate the volume prepared from 500 cc. of whole blood of a normal adult. These concentrates are not only safe to administer and effective in anemic states, particularly in the post-hemorrhagic anemias, but they possess certain advantages, as follows:

1. Maximum increase of hemoglobin can be produced with a minimum transfused volume, and a more rapid restoration of hemoglobin concentration can be achieved without the danger of overloading the circulation.

2. Group O concentrates are immediately available for emergencies without preliminary typing or cross-matching, and the danger of damage to recipient's cells from the universal donor's isoagglutinins is greatly lessened.

3. The utilization of concentrated red cell suspensions preserves a large group of prospective donors, and plasma can be conserved for essential use in cases of shock and burns.

The technic of administration is the same as with whole blood or plasma, using a stainless wire mesh filter. An increase in height in the level of the bottle insures a satisfactory flow and only an occasional change of the filter may be required.

The question of maximum storage of preserved red cells for effective transfusion treatment of anemic states is still controversial. Some English workers believe that red cells stored even without a preservative are effective in the treatment of acute hemorrhage after as long a storage as eighteen days.[11] A more detailed study of the clinical application of the erythrocyte concentrates will appear elsewhere, but meanwhile a more widespread use of these suspensions is recommended. The use of concentrated suspensions is contraindicated in cases of shock and burns.

INDICATIONS FOR USE OF VARIOUS FORMS OF BLOOD

With the availability of concentrated red-cell suspensions our combined blood-plasma bank furnishes the following types of blood:

1. Whole citrated blood.
2. Whole citrated blood, preserved with dextrose.
3. Pooled plasma, liquid.
4. Pooled plasma, frozen.
5. Diluted plasma in dextrose.
6. Erythrocyte concentrate.

Some of these types of blood are seen in Fig. II.

[10] DeGowin, E. L.; Harris, T. E., and Bell, J.: Rates of Hemolysis in Human Blood Stored in Dextrose Solutions and in other mixtures. *Proc. Soc. Exper. Biol. and Med.*, **49**:481-484, 1942.

[11] Mollison, P. L., and Young, I. M.: Survival of the Transfused Erythrocytes of Stored Blood, *Lancet* **2**:420, 1940.

FIGURE II

Some forms of plasma and blood used in our bank.
On the table, left to right: frozen pooled plasma, liquid plasma, erythrocyte concentrate, whole blood before aspiration of plasma, blood in Alsever's solution, and diluted plasma in dextrose.
Note the thawing of frozen plasma in water bath at 37° C.

What are the indications for use of these various types of blood? Table I gives a summary of the most important indications. It will be seen from the table that plasma is indicated in the vast majority of those emergencies in which transfusion of whole blood has been employed in the past. Regarding the relative merits of diluted plasma, opinions seem to vary considerably. Some authorities, as Strumia,[12] consider diluted plasma ineffectual in cases of severe late shock due to the fact that diluted plasma proteins do not exert a sufficient osmotic pull. According to Strumia the preparation and use of diluted plasma are less satisfactory than plasma having a protein concentration of 5.5 and above. The exclusive preparation of diluted plasma, as is apparently practiced in some of the hospitals at present, should, therefore, be discouraged. We prepare only a small percentage of our plasma as diluted plasma in dextrose.

The early recognition of shock before the obvious clinical picture is of utmost importance for adequate and successful treatment. Hemoconcentration, easily detectable by a hematocrit reading or serial red blood counts, is the earliest sign of shock and precedes the fall in blood pressure by many hours. Hemoconcentration is particularly marked in cases of burn shock. If plasma transfusion is to supply prothrombin or immune bodies, the use of fresh plasma, or plasma preserved in the frozen state, is indicated. Plasma kept in the liquid state shows such a progressive loss of prothrombin and complement as to be valueless in these conditions. In some emergencies, such as shock with severe hemorrhage, plasma is indicated for immediate relief, followed by whole blood transfusion if anemia is severe. In such cases the attending physician may request a typing and cross-matching while the patient is still receiving a plasma transfusion. Some institutions warn against immediate typing and transfusion of whole blood for patients receiving plasma intravenously. A frequent advice is, "wait for awhile." This practice is not justified in any way and may prove disastrous due to unnecessary delay. There is sufficient unequivocal evidence on the part of many investigators that incompatible iso-agglutinins injected intravenously are absorbed and fixed at once, and disappear from the circulation almost immediately.[13] This holds true even if the injected iso-agglutinins are present in a fairly high titer, certainly higher than those usually prevailing in pooled plasma.

DOSAGE

An essential requirement for the effective use of plasma is an adequate dosage. It has been said quite properly that there is no more reason always to give a patient with burns or in shock a pint of plasma than to give every diabetic person ten units of insulin. A simple and satisfactory way to determine the dosage of plasma in cases of shock is to estimate the degree of hemoconcentration by the hematocrit method. In cases of burn shock, the rule of Harkins[14] is to give 100 cc. of plasma for each point of hematocrit exceeding the average normal of 45. Thus, a man with a hematocrit reading of 54 should receive (54-45) $\times$ 100 = 900 cc. of plasma.

Marriott and Kekwick[15] emphasized the quantitative factor in blood transfusion and recommended the observation of the following points in correcting anemic states by means of transfusion.

The desirable increase in hemoglobin concentration is:

1. Dangerously severe anemia—to 45%.
2. Anemia complicated by some emergency—to 80%.
3. Anemia where recovery is urgent—to 100%.
4. Aplastic and allied anemic states—to 60 to 80%.
5. Anemia in septic conditions—to 100%.

With the use of erythrocyte concentrates, as mentioned in this paper, a double increase of hemoglobin may be achieved with the same volume as whole blood. One unit of erythrocyte concentrate usually raises the hemoglobin concentration in adults of average weight by approximately 12 to 15 per cent.

ADMINISTRATION

Plasma must be administered through a filter in order to remove the floccules of fibrin. We have been using a stainless steel filter (200 mesh) with fully satisfactory results. The filter is also satisfactory for the administration of concentrated red-cell suspensions without the necessity of re-

[12] Strumia, M. M.: Fluid Replacement Therapy in Shock, Military Surgical Manual on Burns, Shock, Wound Healing and Vascular Injuries, Chap. 3, W. B. Saunders Co., 1943.

[13] Thalhimer, W.; Witebsky, E., and Strumia, M. M.; Discussion by: Blood Substitutes and Blood Transfusions, Charles C. Thomas, p. 334-336, 1942.

[14] Harkins, H. N.: The Treatment of Burns in Wartime, *J.A.M.A.*, **119**:385-390, (May) 1942.

[15] Marriott, H. L., and Kekwick, A.: Volume and Rate of Blood Transfusion for the Relief of Anemia. *Brit. M. J.*, **1**:1043, 1940.

moving the "leukocyte gel." Neither whole blood, erythrocyte concentrates nor plasma are heated before transfusion. Frozen plasma must be properly thawed as already mentioned. Plasma can be administered intravenously, intramuscularly or intramedullary.[16] The intramedullary infusion through the sternum is particularly useful in cases of shock or burns where the peripheral veins may be collapsed or mutilated, and in emergencies where a safe transportation of the patient receiving a plasma transfusion is required. The infusion-needle can be safely left in the sternum for a period of many hours, or even days,[17] and is not likely to be dislocated by usual means of transportation. Recently corpus cavernosum penis has been suggested as a site for transfusion.[18] I did not have a chance to investigate this possibility.

REACTIONS

The incidence of reactions following transfusion of stored blood and plasma reported by various authors varies considerably. This may be partly due to a difference of opinion as to what constitutes a transfusion reaction. A more uniform classification and standardization of post-transfusion reactions would be of definite value.

Weinstein,[19] in a recent analysis of 1,500 transfusions of unpooled liquid plasma, found only fifteen reactions, none of which were serious or fatal, making an incidence of only 1 per cent. The majority of reactions are unspecific, such as occur in any form of intravenous therapy. The use of a strictly closed system in the preparation of plasma, the meticulous care of the equipment including the donor and recipient sets, and the administration of plasma and erythrocyte suspensions through a fine wire mesh filter greatly reduces the incidence of reactions. A few recent reports question the safety of administration of untyped plasma on the basis of possible incompatible agglutinins or agglutinogens. In the case reported by Polayes and Squillace[20] a "near fatal" reaction occurred following the transfusion of dried plasma properly dissolved in water. The authors subsequently found that agglutination of recipient's cells by the plasma solution occurred in a dilution of 1:16. The data presented in the case do not furnish any evidence of a hemolytic reaction. The fate of the so-called "incompatible agglutinins" recently has been studied most carefully in two significant contributions to this subject by Aubert and his associates.[21,22] They studied the effect of high-titered iso-agglutinins (Anti-A) which were injected into a recipient of Group A and could be apparently expected to produce an incompatibility reaction. Some of the patients received 500 cc. of Group O serum with a titer of 2.048. One patient belonging to Group A was given in eighty minutes 450 cc. of Group O serum, containing Anti-A agglutinins in a titer of 16.384. Although several patients developed symptoms referable to intravascular agglutination and hemoglobinemia, none of the reactions could be classed as dangerous, and the reactions always disappeared within five hours.

The results of this careful study are significant and confirm the recently expressed opinion of other authors[23] that intravenous administration of untyped, pooled plasma, the titer of which is rarely above 60, is perfectly safe.

Levine and State[24] recently reported six cases in which reactions following administration of homologous plasma were attributed to the sensitivity to A and B substances. They suggested an intradermal test for toxicity of human plasma. The evidence presented is not quite conclusive. The positive skin reactions could be caused by many other factors in the plasma. As far as properly pooled plasma is concerned, it is very questionable if it ever contains free A or B agglutinogens. In order to determine this point I conducted some studies on pooled plasma, the results of which will be reported elsewhere. My studies by means of the so-called "inhibition technic" failed to reveal any evidence of free agglutinogens in pooled plasma, even in pools with an agglutinin titer of less than two, and indicate the neutralization of free agglutinogens in the process of pooling.

The reactions following the use of erythrocyte concentrate seem to be less frequent than following whole stored blood. In cases of hemolytic reaction following intragroup transfusion, isoimmunization due to the Rh. factor should be considered. If the blood has been stored for more than ten days, a routine alkalinization of the urine appears advisable. In cases of suspected hemolytic transfusion reaction, the first urine voided following the transfusion should be sent to the laboratory to be tested for free hemoglobin, and a sample of venous blood, collected with a sterile dry syringe,

[16] Tocantins, L. M., and O'Neill, J. F.: Infusion of Blood and Other Fluids into the General Circulation Via Bone Marrow, *Surg., Gynec. & Obst.*, **73**:281-287, (Sept.) 1941.

[17] Doud, E. A., and Tysell, J. E.: Massive Intramedullary Infusions, *J.A.M.A.*, **120**:1212, 1942.

[18] Strain, R. E.: Transfusion Sites, *Lancet* **1**:61, (Jan.) 1942.

[19] Weinstein, J. J.: Reactions from the Transfusion of Unpooled Liquid Human Plasma; Analysis of Fifteen Hundred Transfusions, *Med. Ann. Distr. of Columbia*, **11**:226, (June) 1942.

[20] Polayes, S. H., and Squillace, T. A.: Near Fatal Reaction to Transfusion with Dried Human Plasma Solution, *J.A.M.A.*, **118**:1050, (March) 1942.

[21] Aubert, E. F.; Boorman, K. E., and Dodd, B. E.: The Agglutinin Inhibiting Substance in Human Serum, *J. Path. and Bact.*, **54**:89-104, (Jan.) 1942.

[22] Aubert, E. F.; Boorman, K. E.; Dodd, B. E., and Loutit, J. F.: The Universal Donor with High Titer Iso-agglutinins: The Effect of Anti-A Iso-agglutinins on Recipients of Group A, *Brit. M. J.*, **1**:659-664, (May) 1942.

[23] Thalhimer, W.: Intravenous Injection of Pooled Normal Plasma or Serum. Is it Dangerous? *J.A.M.A.*, **120**:1263-1267, (Dec.) 1942.

[24] Levine, M., and State, D.: A and B Substances as a Cause of Reactions Following Human Plasma Transfusions, *J.A.M.A.*, **120**:275, (Sept.) 1942.

TABLE I.

MAIN INDICATIONS FOR USE OF THE VARIOUS FORMS OF PLASMA AND BLOOD

Clinical Condition	*Indication*
1. Primary shock (neurogenic)	No indication for plasma or whole blood.
2. Secondary shock (hematogenic)	Plasma (diluted plasma ineffective in severe or late shock).
3. Burns	Plasma; whole blood or erythrocyte concentrate contraindicated.
4. Severe hemorrhage with or without shock	Plasma for immediate emergency, followed by erythrocyte concentrate or whole blood.
5. Infections	Fresh or frozen plasma to supply immune bodies; if severe anemia: whole blood.
6. Intestinal obstruction	Plasma.
7. Pre- or post-operative hypoproteinemia	Plasma.
8. Nephritis with edema	Plasma.
9. Cerebral edema	Concentrated plasma.
10. Nephrosis with albuminuria	Concentrated plasma.(?)
11. Anemias	Erythrocyte concentrate or whole blood.
12. Blood dyscrasias with hemolytic syndromes, low prothrombin, etc.	Fresh or frozen plasma or fresh whole blood.
13. Acute poisonings affecting oxygen-carrying capacity (e.g. carbon monoxide)	Whole blood.

should be tested for evidence of intravascular hemolysis. Bushby and his co-workers[25] recommend that the patient be given 8 Gm. of potassium citrate by mouth, which produces an alkaline urine in about one-half hour. This is to be followed by a further dose of 35 Gm. dissolved in 2,000 cc. of lemon water within the next twenty-four hours.

CONCLUSIONS

1. The operation of a combined blood-plasma bank is relatively simple but requires expert supervision and proper selection of available methods.

2. The operation of a blood-plasma bank in a medium-sized hospital has been outlined.

3. The preservation of the plasma stock in the liquid state is to be discouraged. For reasons of safety and preservation of the more labile elements, plasma should be kept in the frozen state.

4. The sterility of liquid plasma cannot at present be insured by addition of any preservative.

5. The red blood cells of the plasma bank need not be wasted. They can be utilized with fully satisfactory results as concentrated suspensions preserved in dextrose (erythrocyte concentrate).

6. The main indications for various forms of plasma and blood, and administration and dosage have been presented.

7. Post transfusion reactions, with particular reference to the role of incompatible iso-agglutinins. have been briefly discussed.

8. A wider establishment of plasma banks in Indiana, and the creation of district plasma banks to supply the counties where hospitals are unable to establish individual banks, appears indicated.

(The author gratefully acknowledges the co-operation of Dr. C. N. Combs, medical director, and Mr. Frank G. Sheffler, business administrator of the Union Hospital. Mrs. Georgia B. Cotton, R.N., M.T., and Miss Charlotte Jackson also rendered valuable technical help.)

221 South Sixth St., Terre Haute, Indiana.

[25] Bushby, J. R. M.; Hart, E. W.; Kekwick, A., and Whitby, L. E. H.: Prevention of Urinary Suppression After Intravascular Hemolysis, *Lancet*, 1:355, 1940.

ABSTRACT

REPORT A COMPLICATION RESULTING FROM BLAST INJURIES IN WAR

A complication of war injuries which differs from those sustained in civilian life is reported in *The Journal of the American Medical Association* for February 27 by Lieut. Comdr. Walter D. Abbott, Lieut. (j. g.) Floyd O. Due and Lieut. (j. g.) William A. Nosik, M. C., United States Naval Reserve. Their report concerns what they term "subdural hematoma and effusion as a result of blast injuries." It involves the formation of a hematoma beneath the dura or the effusion or escape of cerebrospinal fluid into the space.

"Subdural hematoma," the three navy physicians say, "is not an uncommon complication of craniocerebral trauma, usually the result of a direct blow to the skull, varying in degree and intensity. It has been shown that the hematoma occurs following the rupture of small veins, either between the layers of the dura or between the inner surface of the dura and the arachnoid. . . .

"We have observed a number of blast injuries sustained in action. They are the result of injury by a nearby exploding bomb on ship or land or may be the result of a concussion wave subsequent to a sinking ship or a depth bomb while the patient is in the water. . . .

"It is our opinion that in some instances in which there is no direct blow, a severe concussion from a bomb explosion at a variable distance away, will lead to either a small subdural hemorrhage or a sudden rent in the arachnoid, permitting a temporary escape of the cerebrospinal fluid into the subdural space. . . .

"The patients present a history of exposure to severe concussion, loss of consciousness for a period varying from a few minutes to several days, persistent headaches, memory loss and irritability. It is seldom that many positive neurologic signs are present, and what few are evident, are not pronounced. The most common findings are a slight facial palsy, a transient hemiparesis and occasionally a transient change in reflexes. . . ."

The three men say that when such a condition is suspected an x-ray study of the brain should be made and if a hematoma or effusion is present a drainage operation should be performed to relieve the condition.

PRODUCTION OF EXPERIMENTAL SHOCK IN DOGS BY THE USE OF VENOUS TOURNIQUETS*

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E. BROWN ROBBINS†

INDIANAPOLIS

In the evaluation of various forms of treatment it seems desirable to have a method which will produce experimental shock with the following characteristics: (a) impossibility of spontaneous recovery of the animal; (b) controllable depth; (c) complete recovery following adequate treatment; (d) freedom from hemorrhage and infection; and (e) intactness of the animal following recovery.

Of the methods in the literature, the application of tourniquets to the thighs appears to have good possibilities in this respect. Wilson and Roome in 1936[1] were the first to employ tourniquets to cause shock. Later, an extensive series of experiments with tourniquets was reported by Allen.[2] He showed that the greater the amount of tissue involved by the tourniquet, the shorter was the period of application necessary to result in shock. Subsequently, this method has been used by many other workers. However, both the arteries and veins were apparently occluded by their procedure. The swelling of the legs and shock occurred following removal of the tourniquets. Consequently, it was impossible *a priori* to determine the minimum duration of tourniquet application required for shock by the individual animal. Venous tourniquets have been reported to cause symptoms of shock in man during the period of their application.[3] Since swelling and fall of blood pressure would occur while venous tourniquets are on the extremity, the requirements of the individual animal might be more easily ascertained by this procedure.

METHOD

Dogs were used in this work since they are large enough to make certain procedures easier. For our equipment the best results were obtained when the animal weighed 12 kg. or more. The animals were anesthetized with seconal sodium (sodium propyl-methyl-carbinyl allyl barbiturate), for abolition of any pain. Repeated doses as necessary for light surgical anesthesia were given throughout the period of tourniquet application. A slight fall of blood pressure of about 5 minutes' duration may occur with each injection of the barbiturate. The thighs were carefully clipped of hair and in most cases shaved, although the latter is not necessary if the hair is clipped closely. Blood pressure was recorded from the common carotid artery, using a mercury manometer and clean technic (sterile technic was found to be unnecessary). Pneumatic tourniquets 31″ long and $1\frac{7}{16}$″ wide with a rubber bag 7″ x $1\frac{7}{16}$″ were employed. These were wrapped snugly around each thigh as high as possible and the straps clamped with hemostats to prevent slipping. The tourniquets from the two thighs were connected by T-tubes, thus equalizing the pressure. One T-tube outlet was connected to a mercury manometer (sphygmomanometer), the other outlet to a rubber bulb. The aluminum sphygmomanometer tubing connectors were used, for they facilitated the connection of the tourniquets to the instrument. A photograph of the apparatus is seen in Figure I.

After application of the tourniquets they were inflated until the pulse in the femoral artery of each leg was no longer palpable. The pressure was then lowered until each pulse was just perceptible and the pressure (systolic) noted. If pressure readings in the two thighs were not almost equal, the tourniquet with the higher reading was reapplied since some of the pressure had been lost in taking up slack. When the tourniquets had been properly adjusted, the pressure was further lowered until equal to the mean carotid blood pressure as recorded on a kymograph. This mean pressure

FIGURE I

Details of apparatus for producing shock. Note the aluminum connector between the sphygmomanometer tubing and the rubber tubing of the nearest T-tube.

* Presented before the Central Society for Clinical Research at Chicago, Illinois, on November 7, 1942.

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[1] Wilson, H., and Roome, N. W.: *Arch. Surg.*, **32**:334, 1936.

[2] Allen, F. M.: *Arch. Surg.*, **38**:155, 1939.

[3] Ebert, R. V., and Stead, E. A., Jr.: *J. Clin. Invest.*, **19**:561, 1940.

was usually about 50 mm. Hg lower than the systolic noted on the sphygmomanometer. We usually clamped the tubes from the tourniquets with hemostats and then removed the sphygmomanometer. Throughout the experiment the tourniquet pressure was regularly checked and always readjusted to equal the mean carotid pressure. This readjustment was important, since a fall in blood pressure would have caused the femoral artery to be shut off by the tourniquet. The tourniquets were allowed to remain on the thighs until the animal had reached the desired stage. This will be further discussed under the section on results. At the conclusion of the experiment, if the animal survived, the carotid artery was ligated and the neck wound sutured.

Venous hematocrits were determined by the Wintrobe method[4] during the first part of this work at regular intervals, but later only at the start and at or near the end of the period of tourniquet application. Blood samples were taken from the external jugular vein.

The dogs which received treatment were given fluids into the femoral vein, using a Murphy drip. Treatment was started as soon as possible following removal of the tourniquets. Usually it was necessary to cut down on the vein, since it was collapsed by the marked blood volume reduction. Dog plasma was prepared fresh the day it was to be given. U.S.P. hard capsule gelatin was prepared as a 7 per cent solution in 0.75 per cent NaCl and 0.25 per cent $NaHCO_3$. A 3 or 6 per cent autoclaved pectin solution in 0.85 per cent saline was made according to the method of Bryant, Palmer, and Joseph.[5]

RESULTS

The usual sequence of events by this method was as follows: With the application of the tourniquets, the blood pressure rose slightly. Somewhat later there was a fall, this usually occurring within thirty to sixty minutes of the start. The hypotension was marked in some dogs, but there was almost always recovery from this preliminary fall. The legs became progressively more cyanotic and swollen, but the degree of swelling was quite variable. Several hours from the start, the blood pressure began to drop again. When the critical level (to be described later) had been reached, the tourniquets were removed which caused a sudden fall in pressure, followed by some recovery. The blood pressure then fell progressively and death resulted. During the period of deep shock the animal usually passed liquid bloody stools. An incision into the thigh after death usually showed a clear clotted plasma-like material, although occasionally blood-tinged. Examination of the bowel at autopsy revealed marked congestion and capillary hemorrhages in the dogs which had bloody diarrhea. Figure II shows one of the records of shock where death occurred during the recording.

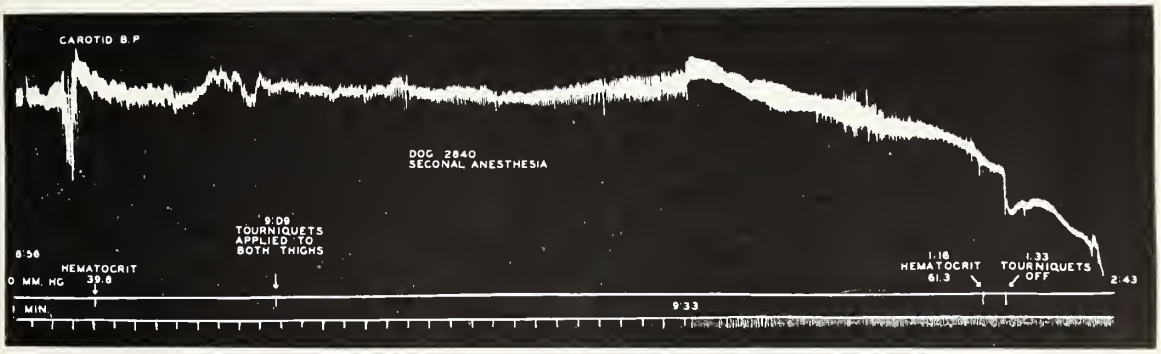
If the animal lived more than two days, we considered it to have recovered from shock. In almost all cases complete recovery occurred if it survived the first day. For a few days the animal was unable to walk because of the swelling and apparent tenderness of its hind legs. This swelling was not nearly so great as that which was present during the period the tourniquets were on. In some cases, while the dog was unable to walk, decubitus ulcers developed, but these always healed spontaneously. The animal appeared to be practically normal in seven to ten days.

The eighty-one dogs used have been classified into four groups. The untreated series of animals is shown in Tables I and II. The animals which recovered had a mean percent blood pressure fall of only 15.0, while that of the animals which died was 48.6. Likewise, the mean carotid blood pressure at the time of tourniquet removal was 123 and 72 in the dogs which recovered or died, respectively. These were significant differences, but when the individual values were examined, slight overlapping of the ranges for the two groups of animals was noted. The duration of tourniquet application showed little difference in the two series. The mean hematocrit changes were prac-

[4] Wintrobe, M. M.: *Am. J. Med. Sc.*, **185**:58, 1933.

[5] Bryant, E. F.; Palmer, G. H., and Joseph, G. H.: *Proc. Soc. Exper. Biol. & Med.*, **49**:279, 1942.

FIGURE II



Kymograph record showing the development of shock with death resulting 70 minutes following the removal of the tourniquets.

TABLE I

ANIMALS WHICH RECOVERED WITHOUT TREATMENT

Dog Number	Weight	Sex	Blood Pressure* (mm. Hg)		Percent Blood Pressure Fall	Hematocrit		Percent Hematocrit Rise	Duration of Tourniquet Application	Shock Index
			Start	End[a]		Start	End[b]			
	kg.								min.	
1	7.9	M	180	124	31.1	43.7	58.7	34.3	300	75
2	11.6	F	160	104	35.0	44.9	56.6	26.1	300	101
3	20.0	F	150	134	10.7	45.7	61.9	35.4	360	29
4	12.0	M	140	116	17.1	29.4	50.7	72.4	240	35
5	10.1	M	152	124	18.4	42.3	53.1	25.5	120	18
6	13.1	M	124	132	−6.4	38.6	50.2	30.1	180	−9
7	16.0	F	112	124	−10.7	41.8	49.8	19.1	180	−16
8	13.5	F	144	90	37.5	29.2	44.7	53.1	240	100
9	14.8	F	148	120	18.9	38.8	58.3	50.3	300	47
10	12.0	F	164	160	2.4	49.7	68.5	37.8	360	5
11	14.6	F	134	96	28.4	41.3	52.9	28.1	360	106
12	12.0	F	140	112	20.0	33.7	51.5	52.8	360	64
13	13.0	F	148	148	0	37.1	68.0	83.3	420	0
14	14.3	M	142	128	9.9	36.1	61.1	69.3	422	33
15	15.1	M	165	146	11.5	43.7	68.5	56.8	420	33
16	12.5	F	125	105	16.0	32.0	44.3	38.4	437	67
Mean				123	15.0		56.2	45.0	312	43

* *All blood pressure values represent mean carotid pressures.*
[a] *The blood pressure at the time tourniquets were removed.*
[b] *Hematocrit value at the time tourniquets were removed.*

TABLE II

ANIMALS WHICH DIED WITHOUT TREATMENT

Dog Number	Weight	Sex	Blood Pressure (mm. hg)		Percent Blood Pressure Fall	Hematocrit		Percent Hematocrit Rise	Duration of Tourniquet Application	Shock Index
			Start	End		Start	End			
	kg.								min.	
1	13.0	M	144	60	58.3	33.9	49.0	44.5	720	700
2	12.3	F	178	64	64.0	42.7	57.1	33.7	420	420
3	10.1	M	118	78	33.9	41.0	60.7	48.0	380	165
4	11.0	M	140	78	44.3	40.2	63.6	58.2	435	247
5	13.2	F	116	97	16.4	39.4	70.9	79.9	435	74
6	10.5	F	124	28	77.4	28.1	37.6	33.8	420	1161
7	14.5	M	135	48	65.2	42.8	74.0	72.9	420	571
8	8.6	F	120	74	38.3	35.8	46.7	30.4	450	233
9	9.6	F	155	55	64.5	41.7	55.2	32.4	380	446
10	11.4	M	150	84	44.0	36.8	55.7	51.4	300	157
11	11.6	F	170	108	36.4	45.0	68.6	52.4	420	142
12	9.6	M	160	112	30.0	45.4	57.9	27.5	465	125
13	12.6	F	160	0*	100.0*	39.1	54.2	38.6	160	
14	11.4	F	136	0*	100.0*	39.7	62.5	57.4	210	
15	12.4	F	148	40	73.0	40.9	58.0	41.8	399	728
16	8.2	M	120	26	78.3	33.9	46.8	38.1	388	1168
17	10.1	M	105	76	27.6	33.2	49.1	47.9	370	134
18	10.5	F	120	86	28.3	34.7	54.0	55.6	410	135
19	10.0	F	145	90	37.9	32.4	50.8	56.8	360	152
20	17.5	F	122	0*	100.0*	39.3	44.8	14.0	270	
21	18.4	M	148	62	58.1	40.9	68.9	68.5	255	239
22	13.8	M	170	98	42.4	37.3	61.8	65.7	260	112
23	20.0	M	165	60	63.6	31.0	36.7	18.4	205	217
24	15.0	M	124	88	29.0	45.5	58.4	28.4	385	127
25	15.8	M	162	95	41.4	42.6	65.7	54.2	319	139
26	13.3	F	165	95	42.4	39.8	61.3	54.0	265	118
27	15.0	M	165	94	43.0	42.5	66.6	56.7	279	128
28	12.2	M	120	73	39.2	38.8	53.7	38.4	233	125
29	14.9	M	100	73	27.0	33.3	47.3	42.0	325	120
30	20.3	M	150	70	53.3	33.3	43.4	30.3	145	110
31	13.3	M	170	35	79.4	40.2	64 1	59.4	68	154
32	14.0	M	140	39	72.1	43.7	61.9	41.6	61	113
Mean				72	48.6		56.5	46.0	332	292

* *Excluded from averages.*

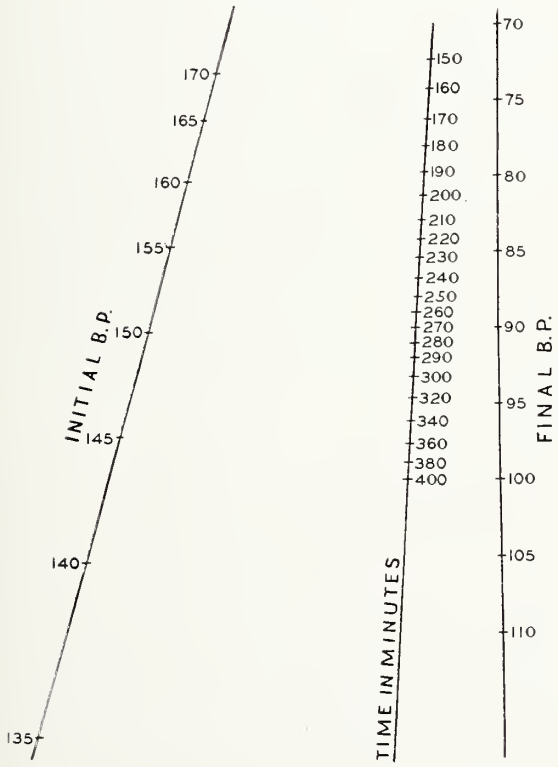
tically identical in the animals which died or recovered. It was thus apparent that none of these determinations by itself would enable us to predict the fate of the animal during the time the tourniquets were on the thighs. It is interesting to note that the mean blood pressure at the time of tourniquet removal often was considerably higher than the level usually considered indicative of shock, although death subsequently occurred.

By correlating blood pressure fall and duration of tourniquet application, a formula was derived which enabled us to determine the individual animal's fate while the tourniquets were still applied. This formula is as follows:

$$\text{Shock Index} = \frac{\text{Percent of Blood Pressure Fall} \times \text{Duration of Tourniquet Application (min.)}}{\text{Mean Blood Pressure at Time of Tourniquet Removal (mm. Hg)}}$$

Table I shows that all the animals which recovered had an index of 106 or less. On the other hand, in Table II, the index was greater than 106 for all the dogs which died, except one (dog numbered 5). It appeared, therefore, that a shock index of around 100 was the dividing line between recovery and death.

FIGURE III



Nomogram used to determine the duration of tourniquet application to produce a shock index of 120.

Dogs numbered 13 to 16 in Table I, and 24 to 32 in Table II were run after the above formula was developed. We attempted to obtain an index of 120 with each animal. In each case, if this value was attained the tourniquets were removed. All nine dogs died which reached approximately this figure. The four that recovered had indices from 0 to 67, although these animals had the tourniquets applied for seven or more hours, considerably longer than any of the nine animals which died. Here again the hematocrit values were similar. Figure III is a nomogram which enables one to follow the blood pressure and time in such a way that the tourniquets may be removed when a shock index of 120 has been obtained. We have found this to be useful since the shock index may change quite rapidly as the critical level is approached. The nomogram is also valuable when it is desirable to run a series of animals to the same level of shock. To use the nomogram, a ruler is laid from the initial blood pressure reading (left line) to the blood pressure at the moment (right line). If the ruler intersects the central line at the figure which equals the actual elapsed time, the tourniquets are removed.

Attention is called to the animals with similar shock indices, but which show the extremes in the duration of tourniquet application. For animals numbered 11 and 12, seven or more hours were required while 31 and 32 needed only an hour (Table II). The latter two dogs developed only slight swelling of the legs, yet marked hemoconcentration occurred and death resulted about three hours after tourniquet removal, being preceded by bloody diarrhea. These animals are particularly interesting since they illustrate exceptionally well the wide variance in the amount of shocking procedure necessary to produce a standard degree of shock in different animals.

The time at which death occurred was variable, ranging from a few minutes after tourniquet removal to twenty-four hours later. In most cases the exact time of death was not determined as it occurred between 5:00 P. M. and 8:00 A. M. the next day, the animals not being under observation during this period. In three cases death occurred while the tourniquets were still applied.

In Tables III and IV are shown the results for the dogs which received transfusion therapy. In all cases except three, the shock index was greater than 100. These three animals would have recovered spontaneously and are included here only because they show that recovery practically always occurred when the shock index was less than 100. All the others would have died had they not received treatment. The mean shock index was 271 in the dogs which died (Table III) as against 211 in the animals which recovered (Table IV). To determine the amount of fluid to be given, we usually roughly calculated the reduction in blood volume and administered enough fluid to restore

TABLE III

ANIMALS WHICH DIED IN SPITE OF TREATMENT

Dog Number	Weight	Sex	Blood Pressure (mm. Hg)		Percent Blood Pressure Fall	Hematocrit		Percent Hematocrit Rise	Duration of Tourniquet Application	Shock Index	Treatment
			Start	End		Start	End				
	kg.								min.		
1	7.7	F	166	90	45.8	45.3	62.8	38.6	300	153	300 cc. Gelatin
2	11.6	M	145	60	58.6	39.9	68.0	70.4	420	410	385 cc. Plasma
3	9.1	M	128	74	42.2	38.3	56.2	46.7	420	240	375 cc. Gelatin
4	13.4	F	140	56	60.0	46.5	64.9	39.6	405	434	435 cc. Plasma
5	10.2	F	180	42	76.7	39.1	43.3	10.7	157	287	525 cc. Gelatin
6	15.0	M	140	70	50.0	35.2	50.2	42.6	420	300	360 cc. Plasma
7	9.4	M	145	55	62.1	40.3	66.1	64.0	330	373	300 cc. Plasma
8	12.0	M	135	35	74.1	37.5	48.8	30.1	306	648	300 cc. Gelatin
9	13.4	M	160	58	63.8	39.3	49.5	26.0	280	308	250 cc. Gelatin
10	13.2	M	128	60	53.1	38.0	54.7	43.9	400	354	300 cc. Gelatin
11	15.8	M	175	95	45.7	46.7	66.0	41.3	370	178	385 cc. Plasma
12	15.3	M	155	80	48.4	39.2	62.7	59.9	350	212	450 cc. Gelatin
13	18.4	M	165	105	36.4	45.8	61.6	34.5	410	142	380 cc. Gelatin
14	17.2	F	170	60	64.7	53.7	63.8	18.8	270	291	450 cc. Gelatin
15	15.6	M	140	90	35.7	45.7	58.8	28.7	400	159	350 cc. Gelatin
16	18.2	F	150	75	50.0	38.5	53.9	40.0	330	220	400 cc. Plasma
17	18.2	M	160	80	50.0	41.7	61.6	47.7	246	154	350 cc. Plasma
18	15.0	M	170	70	58.8	38.6	55.1	42.7	185	155	400 cc. 3 percent Pectin
19	13.8	M	165	86	47.9	38.8	57.1	47.2	260	145	500 cc. Plasma
20	18.7	M	175	60	65.7	40.7	57.4	41.0	242	265	650 cc. Gelatin
Mean				70	54.5		58.1	40.7	325	271	

TABLE IV

ANIMALS WHICH RECEIVED TREATMENT AND RECOVERED

Dog Number	Weight	Sex	Blood pressure (mm. Hg)		Percent Blood Pressure Fall	Hematocrit		Percent Hematocrit Rise	Duration of Tourniquet Application	Shock Index	Treatment
			Start	End		Start	End				
	kg.								min.		
1	12.2	F	128	50	60.9	39.9	54.0	35.3	420	512	400 cc. Gelatin
2*	8.6	M	146	110	24.7	44.3	61.4	38.6	420	94	300 cc. Gelatin
3	11.5	M	124	86	30.6	42.3	59.8	41.4	420	150	300 cc. Gelatin
4	15.4	F	156	70	55.1	45.5	62.3	36.9	345	272	330 cc. Plasma
5*	21.4	F	134	124	7.5	35.8	50.4	40.8	420	25	370 cc. Gelatin
6	16.1	M	180	122	32.2	31.1	60.4	94.2	420	111	350 cc. Gelatin
7	10.2	F	150	92	38.7	35.2	45.9	30.4	350	147	250 cc. Gelatin
8	15.0	M	145	90	37.9	35.5	51.7	45.6	375	158	390 cc. Plasma
9	17.0	F	165	85	48.5	29.2	53.0	81.5	290	165	350 cc. 6 percent Pectin
10*	11.0	F	150	120	20.0	38.6	60.4	56.5	420	70	350 cc. 3 percent Pectin
11	14.1	F	140	86	38.6	30.3	51.3	69.3	345	155	400 cc. 3 percent Pectin
12	14.0	M	150	72	52.0	31.8	64.5	102.8	422	305	500 cc. Plasma
13	15.8	F	125	75	40.0	34.3	55.7	62.4	261	139	500 cc. Gelatin
Mean				83	43.3		55.9	60.0	365	211	

* *Excluded from the averages.*

the amount lost. The following formula was used for this purpose:

$$\left(1.00 - \frac{\text{Initial Hematocrit}}{\text{Final Hematocrit}}\right) \times \text{Original Blood Volume} = \text{Reduction in Blood Volume}$$

The original blood volume was considered to be 8 per cent of the body weight. There was little difference in effectiveness of gelatin and plasma, as shown by our results. Of seventeen animals treated with gelatin, five recovered, whereas three out of eleven dogs recovered which were given plasma. One dog died and two recovered of those which received pectin, the fourth animal not being included since it would have recovered spontaneously. Since the majority of these experiments were performed

before the shock index was developed, the degree of shock was widely variant in the different animals. By the use of a constant index, it should be possible to make much more accurate determinations of the efficiency of blood substitutes. It can be definitely said, however, that this form of shock is not irreversible in spite of treatment, as are most others. Our results agree with the recent work of Waters[6] and Gordon, Hoge and Lawson[7] that gelatin is effective shock therapy.

A comparison of the results in all the tables as related to the animals' sex reveals that females withstood shock better. Of thirty-three females, eighteen recovered with or without treatment, while only ten of forty-five males recovered under these conditions. However, the experiments would need to be controlled better in order to prove this point. Noble and Collip[8] noted that female rats were more resistant to shock by their procedure than males, but the reverse was true of guinea pigs.

DISCUSSION

The cause of shock in these animals has not been determined. Originally, we thought that by this procedure shock would be due to plasma loss into the constricted limbs and reduction of blood volume, one of the most widely accepted theories. However, this does not appear to be the primary cause with our method, because the degree of hemoconcentration was the same in the animals which developed shock and those which did not. There is evidence that changes in hematocrit values reflect blood volume changes fairly accurately where only fluid or plasma is lost.[9] Consequently, the degree of blood volume reduction was probably nearly equal in the dogs which recovered or died. Since whole plasma probably was lost from the circulation in the leg tissues, and capillary permeability may be increased throughout the body in shock,[10] the determination of blood volume by the dye method probably would not have been more accurate. However, there can be little doubt the blood volume was greatly reduced in these animals. Reduced blood volume may have been a factor contributing to shock, but some other reason is necessary to explain the development of shock in one group and not in another. In this connection, Wiggers and Werle[11] recently have found that the production of hemorrhagic shock depended on the degree and duration of the blood pressure fall, while the amount of hemorrhage necessary for shock was widely variable.

If a toxic substance were developed here, causing shock, it is difficult to understand how it got into the general circulation. Shock and even death did occur while the tourniquets were still in place. However, it is of interest that the degree of swelling of the legs and the rise of hematocrit value did not always appear to go hand in hand. In some dogs marked hemoconcentration occurred with only slight to moderate increase in the size of the legs. It would appear that in these dogs fluid was lost from the circulation in other parts of the body. This could be the result of a substance toxic to endothelium. Since no other part of the body was particularly disturbed, the legs would appear the most likely source. It is altogether possible, however, that the cause in this procedure may be entirely different from the mechanism in certain other forms of secondary shock.

CONCLUSIONS

1. A method of experimental secondary shock production in dogs is described.
2. The principle of this method is the application of pneumatic venous tourniquets, resulting in swelling of the legs and shock, the depth of which can be controlled in individual animals.
3. Shock from which spontaneous recovery cannot occur, but which is reversible with transfusion therapy, can be produced.
4. There is little or no hemorrhage or infection, and complete recovery of the animal can occur.

[6] Waters, E. T.: *Canad. Med. Assn. J.*, **45**:395, 1941.

[7] Gordon, H.; Hoge, L. J., and Lawson, H.: *Am. J. Med. Sc.*, **204**:4, 1942.

[8] Noble, R. L., and Collip, J. B.: *Quart. J. Exper. Physiol.*, **31**:187, 1942.

[9] Ashworth, C. T., and Tigertt, W. D.: *J. Lab. & Clin. Med.*, **26**:1545, 1941.

[10] Moon, V. H.: *Am. J. Med. Sc.*, **203**:1, 1942.

[11] Wiggers, C. J., and Werle, J. M.: *Proc. Soc. Exper. Biol. & Med.*, **49**:604, 1942.

ABSTRACT: HASTY, INADVISED PUBLICITY

A recently publicized "new" treatment for asthma "is another example of hasty and inadvised publicity based on scanty scientific evidence and questionable promotional practice," *The Journal of the American Medical Association* points out in its November 14 issue. *The Journal* says:

"Inquiries concerning a 'new' treatment for asthma which employs injections of 'ethylene disulphonate' appear to have been stimulated recently by publicity in *Newsweek* for October 12 and by the United Press in various newspapers. A paper given by Dr. Norman M. Smith of Minneapolis at the Mississippi Valley Medical Society meeting in Quincy, Ill., was the basis for the publicity. 'Ethylene disulphonate' was originally promoted under the name Allergosil by the Spicer-Gerhart Company of Sunland, Calif. Back of this company is one Edward H. Spicer, who some years ago was actively connected with a product called Edwenil. Allergosil is not available for interstate distribution but 'for investigational use only' under the provisions of the Food, Drug and Cosmetic Act of 1938 controlling the release of new remedies. Request from outside California, addressed to the Spicer-Gerhart Company, indicates that this preparation, which is described as a 1.10^{-15} dilution of 'ethylene disulphonate,' can be obtained for investigational purposes at a cost to the profession of $13.50 per single 2 cc. dose. Here is another example of hasty and inadvised publicity based on scanty scientific evidence and questionable promotional practice."

THE RIGHTS OF THE INDUSTRIAL PRACTITIONER IN THE INDUSTRIAL MEDICAL PROGRAM*

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I wish to present some facts relative to the aims of this program, what may be expected of the employer and employee and the rights of each, and the place that the family physician now occupies.

We now have the employer furnishing three groups of medical care and supervision.

I. Examination of applicants for employment to ascertain fitness for employment (also to eliminate those that might increase the compensation load and vulnerability to accident and disease), and re-examination to protect the health of individual employees and to insure their continued ability to work.

II. Examination for industrial disease—disease due to their work, i.e., lead poisoning, silicosis, et cetera.

III. Accidents arising out of employment, or conditions aggravated and made apparent by employment.

The last two are covered by the Indiana Workmen's Compensation Law, and I wish to point out that according to the law, of which I will quote from a memorandum, by the attorney for the Indiana State Medical Association, the family physician is not given much of a place in caring for his patient if that patient seeks to receive his rights under the Compensation Act.

MEMORANDUM ON RIGHT OF INSURANCE COMPANY OR EMPLOYER TO SELECT PHYSICIAN TO TREAT EMPLOYEE UNDER WORKMEN'S COMPENSATION LAW.

The statute requires the employer to "furnish or cause to be furnished, free of charge to the injured employee, an attending physician, for the treatment of his injuries, and in addition thereto such surgical, hospital and nurse's services and supplies as the attending physician or the industrial board may deem necessary.

"And during the whole or any part of the remainder of the period of disability or impairment resulting from the injury, the employer may continue to furnish such physician, services and supplies. *The refusal of the employee to accept such services and supplies, when so provided by the employer, shall bar the employee from all compensation during the period of such refusal.*

"If in an emergency or because of the employer's failure to provide such attending physician or such surgical, hospital or nurse's services and supplies as herein specified, or for other good reason, a physician other than that provided by the employer treats the injured employee within the first ninety days, or necessary and proper surgical, hospital, or nurse's services and supplies are procured within said period, the reasonable cost of such service and supplies shall, subject to approval of the Industrial Board, be paid by the employer" (Burns 1933, Section 40-1225).

The right of the employer to furnish a physician of his own selection and force the injured employee to accept such physician and his services is not absolute. Under the following circumstances the employee may select his own physician.

1. In an emergency.
2. Upon failure of the employer to provide an attending physician.
3. Or for other good reason.

Apparently the only one of these exceptions from which a controversy might arise is the third one. What constitutes a good reason for the employee to have a physician other than that selected by the employer?

In Witte v. Winkler (1934), 190 N. E. 72, the court held that an injured employee who was sixty-four years old and who suffered from heart trouble and other maladies and from double hernia was not required to submit to an operation by the employee's physician, where two other reputable physicians advised the employee not to submit to the operation for the reason that it might prove fatal. The opinion mentions the testimony of the employee's doctor and of one other doctor called to testify for the employee. Quoting from the opinion:

> "The doctor called by appellee testified that he thought the appellant could undergo such a surgical operation, but did not say whether he thought it would kill or cure him."

The court seemed to lean to the view that it was not enough to show that one could undergo an operation, but that it must be shown that if he underwent it, it would not kill him, in order to make the refusal to submit to the operation an unreasonable refusal.

In Indiana Liberty Mutual v. Strate (1925), 148 N. E. 425, the court held that whether the action of the injured employee in refusing to accept the services of a physician designated by the employee is reasonable is a question for the Industrial Board. But in general the refusal without just cause of the services of a competent physician furnished by the employer has the effect of suspending compensation during the period of such refusal.

Where the employer is mentioned, of course the rights of the employer to select the physician devolve upon the insurance company by the terms of practically all insurance company policies if the employer carries compensation insurance.

* Presented before Indiana's Industrial Health Conference, at Indianapolis, February 25, 1943.

When we consider that the philosophy of the Compensation Act, as stated in it, is based on the replacement of materials or men that are damaged and destroyed in the line of employment, and the cost added to the cost of the production of the product must be borne by the workers and the employer and not by the employer alone. Such being the case, it would seem fair and logical that the employee should have the right of personal choice of physician, a principle for which the American medical profession has consistently fought.

There are, no doubt, many valid reasons, from the standpoint of the employer or the insurance company, why the employee should not have this right, just as there are certain advantages in having the work of caring for the injured employee centralized so far as possible.

However, the fact remains that of all the plans tending to socialize medicine to date, such as the Wagner Health Bill, the Report of the Roach Committee on Public Health, and various governmental and private groups furnishing medical care, none have gone so far in the abridgment of the patient's right of personal choice of physician as is provided for in the Indiana Workman's Compensation Law.

In conclusion: Many physicians, both in the service and in civilian practice, fear that following the war sweeping attempts will be made to federalize, socialize or collectivize medical practice. While some of us do not share these fears, one need not look further than the ever-broadening scope of Indiana Industrial Disease Laws to provide a full-fledged pattern and a valid precedent for private insurance, federal, state or other forms of group practice, the activities of which could gradually eliminate all rights of the individual in his personal choice of physician.

LEGAL RESPONSIBILITIES OF THE INDUSTRIAL PHYSICIAN*

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The "industrial physician," as that expression is used in this paper, is the physician who is employed by the employer of labor to take care of the injuries and diseases of employees arising out of and in the course of their employment. Under the Workmen's Compensation Law of the state of Indiana, and of practically all the other states, where both the employer and the employee have accepted the terms of that law (which they are presumed to have done unless either or both have specifically rejected it), it is the duty of the employer to provide medical and hospital care and services for a limited time after an employment-connected injury. In Indiana the time is ninety days, but the employer may continue to furnish medical care after that time. The employee must accept the medical service furnished by the employer or lose his right to receive compensation during the period of such refusal.

The industrial physician is employed by the industrial employer of labor. But the agreement between the employer and the physician is an agreement made for the benefit of a third party, the third party being the injured employee who accepts the services of the physician.

Ordinarily the obligations of an employee in relation to his employment run to his employer primarily. But it is not so where the industrial physician accepts and undertakes to treat an injured employee, for in that case there immediately arises the relationship of physician and patient. That relationship puts upon the physician the same duties and obligations with respect to the care of the industrial patient as he would have if he had been employed directly by the patient himself. The physician's obligations, where the interests of his patients are involved, run primarily to the patient. While the employer engages and pays for the services of the physician, the physician must work primarily for the patient in his care and treatment, and in the protection of the rights of the patient.

The relationship between the physician and his industrial patient is a confidential relationship. The only point upon which the patient waives privileges under the confidential relationship is this: By accepting the industrial physician as one of the conditions upon which the patient is entitled to receive compensation, the patient thereby waives any objection he might otherwise have to the physician testifying regarding the extent and nature of the injuries he treats and the physical condition of the patient in relation to such injuries.

Under the Indiana law the workman is entitled to compensation for occupational diseases, by which is meant "diseases arising out of and in the course of employment." Ordinary diseases of life to which the general public is exposed outside of their employment are not included. The statute reads in part:

> "A disease shall be deemed to arise out of the employment, only if there is apparent to the rational mind, upon consideration of all of the circumstances, a direct causal connection

* Presented before Indiana's Industrial Health Conference, at Indianapolis, February 25, 1943.

between the conditions under which the work is performed and the occupational disease, and which can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment and which can be fairly traced to the employment as the proximate cause, and which does not come from a hazard to which workmen would have been equally exposed outside of the employment. The disease must be incidental to the character of the business and not independent of the relation of employer and employee. The disease need not have been foreseen or expected but after its contraction it must appear to have had its origin in a risk connected with the employment and to have flowed from that source as a rational consequence."

There are no limitations in the Act itself as to what constitutes an occupational disease. Any disease which "arises out of the employment," as that expression is defined in the Act, is an occupational disease.

In determining whether a disease from which one may be suffering is a compensable occupational disease, there is one conclusive presumption provided for in the Act. It is that an employee "shall be conclusively deemed to have been exposed to the hazards of an occupational disease when for any length of time, however short, he is employed in an occupation or process in which the hazard of the disease exists." The fact as to whether a case falls within the classification of occupational diseases is a matter to be established by evidence. It is a question of fact and not of law. But obviously the evidence best adapted to establish either the existence or non-existence of the fact is expert evidence in the form of medical testimony. And the Act gives to the employer the right to require an autopsy at his expense, to be performed by a competent pathologist to be named by the Industrial Board. The autopsy cannot properly be held without first giving notice to the parties in interest so that they may attend. Consent for the autopsy should be obtained from those having the right of burial.

In order that employees may receive the benefits to which they are entitled under the law, care in diagnosis with relation to the circumstances of employment out of which occupational diseases may arise should be exercised by physicians. They have the duty of informing their patients of the existence of such diseases so that notice and claim for compensation may be made within the time allowed by the statute. No compensation is payable unless disability occurs within one year after the last exposure to the hazards of the disease, except as to diseases caused by silica dust or asbestos dust, in which cases the limit is three years after exposure.

Notice of disablement must be given to the employer "as soon as practicable after the date of disablement," and claim for compensation must be filed with the Industrial Board within one year from the date of disablement; or in the event of death, within one year after the date of death. If the employee (or in event of death, his dependents) loses his right of recovery because of negligence of the attending physician in making and reporting his diagnosis to the patient, it is possible that there would be a cause of action against the physician for damages in the amount of the compensation recoverable under the Act.

The industrial physician is required to use the same degree of care and skill as would be required of him in the treatment of a patient who employed and paid him directly. If he fails in that regard, then he is guilty of negligence. And negligence, when it has to do with professional services, is known as malpractice. What constitutes malpractice is determined by an adaptation of the universal test for determining the existence of negligence. Negligence is defined as the failure of a person to do the thing which an ordinarily cautious and prudent person, in the exercise of reasonable care, would do under the same or like circumstances; or as the doing of a thing which the ordinarily cautious and prudent person, in the exercise of reasonable care, would not do under the same or like circumstances. Thus negligence may consist either of acts of omission or of commission. Briefly stated, it is the failure to use proper care.

Now when it comes to malpractice, instead of the ordinarily cautious and prudent person furnishing the standard of conduct, the ordinarily careful and skillful physician or surgeon in the same or similar localities, in the exercise of reasonable care, is the one who furnishes the standard by which to test the conduct of the particular physician or surgeon. If there is a failure to conform to that standard and the patient suffers damages therefrom, the physician is liable for such damages, even when he is acting as an industrial physician, unless the Compensation Act or the decisions of the courts in the state in which he is practicing hold otherwise.

There are some differences in the decisions of the courts and also in the language of workmen's compensation acts, affecting the liability of industrial physicians in the different states.

In a few states it has been held that the malpractice of an industrial physician should be regarded only as an incident to the original injury, even if it results in prolonging the period of his industrial disability or in creating greater permanent impairment of the person of the employee as a whole; and that the patient has only one remedy, which is the obtaining of additional compensation to cover the injuries resulting from the malpractice.

In some states it has been held that the patient has no right of recovery against his employer because of the malpractice of the physician, on the theory that the burden of caring for industrial injuries is discharged when the injury resulting from the occupation alone has been properly provided for; and that if some additional injury re-

sulted because of some act of commission or of omission of the physician, that additional injury should not be one of the burdens of industry but should rest upon the physician himself because of his duty and obligation to use proper skill and care.

In many states the courts have held that injuries to industrial patients resulting from malpractice of the physician or surgeon are in the same class as injuries sustained by one in the course of his employment as a result of the negligence of some third person. To illustrate: A man was employed by a saw-mill company to help haul away slabs that had been sold to a customer of the company. The customer provided his own truck and driver who was to help in loading it. The truck driver, while engaged in some horseplay as a practical joker, brought about an injury of the mill employee who was not participating in the horseplay activities, but was seriously engaged in the business of helping to load the slabs, which he was employed to do. Clearly, the injury arose out of his employment and was compensable. But just as clearly the injury was caused by the negligence of the employee of the slab buyer. Against which one was the mill employee entitled to maintain an action for the recovery of damages for his personal injuries?

The court held in that case that he was entitled to file his claim with the Industrial Board and ascertain the amount of compensation he would be entitled to recover from his own employer; and that at the same time he could file a suit against the slab buyer to recover, in a common law action, a judgment for damages on account of his personal injuries; and that he could maintain both actions to the final decision, after which he could enforce by execution whichever one of the two remedies he chose. If he could get more from his employer under the Compensation Law, he could compel the employer to pay. But if he could get more on the common law judgment against the slab buyer, he could compel the slab buyer to pay that judgment. The only limitation was that he could not enforce both the compensation award and the common law judgment, for that would result in his being paid twice.

The doctrine of election just illustrated, as it is known in law, is recognized in Indiana as between an employee and a third party guilty of negligence causing injuries to the employee in the course of his employment. But there are no reported cases in Indiana deciding the question as to whether an industrial physician may be held personally responsible to an industrial patient for malpractice. It seems apparent, however, that the Indiana courts could reach that result. The Indiana Supreme Court has held that a physician is an independent contractor when he accepts employment to take care of a patient. That decision is thoroughly sound when tested by the fundamental legal principles involved.

There are two types of employees: (1) an agent or servant, and (2) an independent contractor. The employer is responsible for the acts of the first class of employees. The doctrine of *respondeat superior* applies where the employer is the master. But the employer is not responsible for the acts of employees in the second class. With respect to them the employer is not the master. To illustrate: If A employs B to build a dwelling house, he may employ him either as a servant or as an independent contractor; if B is employed as a servant, then A has the right to tell him how to produce the result that A desires, what tools to use, what additional employees he may bring onto the job, or anything else by which A may direct the manner and means by which the result is to be produced; but if he employs B as an independent contractor, then he gives to B his blueprints and specifications or he tells him what results he desires, and leaves to B the determination of the means and methods by which the result is to be produced.

When an industrial physician or surgeon is retained by an employer, it is with the understanding that the physician has the responsibility to select the means and methods by which the patient is to be restored to wholeness. The physician, therefore, is an independent contractor, as has been held by the Indiana Supreme Court.

It is reasonable also to regard any prolongation of disability or aggravation of impairment, resulting from malpractice, as an incident to an original injury. Regarding it as such and at the same time holding the physician to be an independent contractor, it logically follows that the industrial patient has the right of election of remedies if he has sustained injuries from malpractice; and under that right he is entitled to pursue both actions to the final result and select the remedy most beneficial to him.

The number of cases in which physicians are held liable for malpractice in industrial cases has not been large. The most numerous of these cases may be grouped into the following classes:

1. Failure to make proper diagnosis.
2. Failure to give proper instructions for care and treatment.
3. Too early discharge of the patient.

Now a word regarding each of these groups:

1. *Failure to make proper diagnosis.* Industrial physicians occasionally come in contact with malingerers. The frequency of such contacts seems to develop a tendency, occasionally, for physicians to be suspicious of the patient's statement concerning his own symptoms. He may writhe when he is not in pain; but if he writhes when he actually is in pain, or can later make a jury believe that he actually was, the physician may be liable because of the extra pain suffered by the patient, if the patient suffers more pain than he would have been allowed to suffer had the physician believed him in the first place. Suppose, for instance, that one claimed to have a pain which might reasonably in-

dicate a broken bone, but that the physician assumes that the patient is only putting on a show and handles him without the solicitude and care ordinarily used by physicians where non-industrial patients made similar complaints, and then that it is later found that the patient did have a broken bone and that it was made worse by the manner in which the physician first handled the situation.

2. *Failure to give proper instructions.* The industrial patient may not need hospitalization, but only home care. The physician must use the degree of care and skill above stated to determine the extent to which instructions should be given and explained, in view of the apparent knowledge and familiarity of the persons of the household with the services they are to render the patient in the proper care of him and for the proper safeguarding of themselves against infection or other results which a lack of knowledge might produce. It is not enough, for instance, for a physician to say to those in the home that they should be careful what they feed the patient. They might exercise care to see that the patient got nothing to eat but dill pickles. The members of the household may have to be instructed as to the food and the manner in which it should be prepared, as to bandages and the manner in which they should be prepared and applied, and as to other facts in connection with the treatment which the physician would be entirely justified in entrusting, without detailed instructions, to the skill of a trained nurse, but not to the skill of the members of a poorly educated family.

3. *Too early discharge of the patient.* While it is the duty of the physician to effect as prompt a cure as possible, and have the patient back on the job and the payment of compensation terminated as soon as possible, the primary obligation of the physician to the patient should not be overlooked. If the patient returns to work with some condition only partially corrected and the nature of his work is such that the condition is aggravated, there might be two possible causes for such an aggravation: (1) that the aggravation of the existing injury was caused by the employment and is, therefore, compensable solely by the employer; and (2) that the aggravation was the result of a condition in the patient himself which should have been anticipated by the physician and guarded against, and, the physician having failed in that regard, that the physician's malpractice was the cause of the aggravation. If the latter is the cause, the physician might face some difficulties. He would be liable if his return of the patient to work could be shown to be something that the ordinarily careful and skillful physician, in the same or similar localities and in the exercise of reasonable care, would not have done.

The above illustrations under items 1, 2 and 3 contain some hypothetical facts. To present actual cases with citations to published reports would serve no better purpose in this paper, and might give embarrassing publicity to the names of patients and physicians in cases where questions of disputed facts were involved.

Fortunately, both for industrial physicians and their patients, so far as the records of lawsuits reveal the facts, industrial physicians have generally been men of skill and ability and have served their industrial patients conscientiously, just as is true with respect to the services rendered by physicians of non-industrial patients. When one considers the enormous amount of medical service rendered, and that each act of that service must conform to the standard of care above stated; how few cases charging malpractice are brought against physicians for failure to conform to that standard; and how few of those that are brought result in judgments for the plaintiff, he cannot fail to be impressed with the conscientious solicitude for the welfare of their patients that the members of the entire medical profession evidence in the discharge of their duties. The relatively small number of malpractice cases is not due to any lack of knowledge on the part of the general public of the right to recover damages for malpractice where the facts warrant it, for the few malpractice cases that have been brought and tried have received so much publicity that it would be difficult to find anyone who does not know of the existence of that right of action.

ABSTRACT

REPORT OBSERVATION ON EYE DISEASE

Reporting on observations made on more than 200 patients with epidemic keratoconjunctivitis (inflammation of the membrane lining the eyelid and the front portion of the eyeball), the acute inflammatory disease of the eye which has spread from shipbuilding plants on the West Coast to the East Coast, Michael J. Hogan, M.D., and Joseph W. Crawford, M.D., San Francisco, report in the current issue of *War Medicine* that: "The disease is most likely caused by a virus, the nature of which is unknown, but which may be related to the herpes facialis group. The condition is not highly infectious. . . . ."

PICK'S SYNDROME

MARVIN SANDORF, M.D.
INDIANAPOLIS

The case here reported illustrates the necessity of bearing this condition in mind as an aid to differential diagnosis, and the profound difference in prognosis between early and late diagnosis. Some are of the opinion that this syndrome is caused by an underlying profound pathological cause manifested by a polyserositis and perihepatitis, whereas others opine that the main syndrome is secondary to a compression effect from constrictive pericarditis caused by contraction of scar tissue in the pericardium. The resulting increased intrapericardial pressure decreases return of blood from the periphery, leading to stasis and dilatation of veins, pleural effusion, enlarged liver and spleen, ascites, cyanosis and edema of the legs. The onset of this condition is gradual and insidious, and during this phase of the condition the patient may be without symptoms.

The condition may first present itself as a predominantly cardiac condition, or the symptoms and signs may be hepatic or abdominal in character. In the latter instance cirrhosis and ascites will be very marked features. Symptoms are usually gradual in onset. Dyspnea, ascites and abdominal discomfort increase as times goes on. Late in the course of the disease cachexia and edema of the extremities appear. On examination there may be signs of myocardial insufficiency with distention of cervical veins, cardiac enlargement and fixation, weak and distant heart sounds, friction rub, systolic retraction of chest wall, pulsus paradoxus, and increased venous pressure. There may also be pleural effusion, enlarged liver, with ascites and dependent edema. Rheumatism and tuberculosis are assumed to be the chief etiological factors of this condition, and the usual interpretation is that the entire syndrome is a mechanical concomitant of the adhesive constrictive pericarditis. The question of specific factors involving the local membranes and tissues has been raised, but this is conjecture and referred for the abstruse considerations of the immunopathologists.

CASE HISTORY

This is the case of A. U., of Indianapolis. She was a housewife aged 47 years, height 63 inches, and weight 145 pounds. This patient was first seen in May, 1939, and at that time complained of shortness of breath, swelling of the abdomen and swelling of the feet. Pitting edema of the feet was demonstrable at the time. The condition had endured for one year prior to this with something of an insidious onset. The B.P. was 110/90 and the pulse was 100. The temperature was normal. Examination of the chest revealed dullness of the lower third of the right lung, with absence of breath sounds to auscultation in this area. The heart was moderately enlarged to percussion. The abdomen was distended with shifting dullness in the flanks and marked ascites of the belly. The urinalysis was negative and the blood count was normal. Patient was advised to have an x-ray of the chest, which showed fluid in the right pleural cavity. The important finding here was a definite but moderate calcification of the pericardium, which gave the clue to the diagnosis of Pick's Syndrome in this case.

This patient was placed under somewhat intensive treatment, and was given two cc. of salyrgan intravenously every other day for four doses, together with paracentesis abdominis with removal of two gallons of fluid by this means in one week. This patient thereafter was sent to the Mayo Clinic for a pericardotomy. The diagnosis was confirmed there, but due to severe myocardial damage and liver damage operation was not considered advisable. The patient returned home in September, 1939, and died approximately one year later, in August, 1940.

After the removal of the fluid from this patient's chest, the x-ray appeared to be negative, with no signs of tubercular infection. The patient remained about four weeks at the Mayo Clinic, from June, 1939. While there she received digitalis for her heart and intensive treatment with salyrgan, one cc. intravenously for a period of two weeks until all the excess fluid was driven out. Her weight under this therapy dropped from 126 to 110 pounds.

This case is being reported because of the necessity of early diagnosis in this type of cases. Surgery is effective here only if the case is seen and diagnosed early. Many cases have improved considerably following surgical intervention. X-ray is of great help in diagnosis. If this patient had presented herself earlier, the prognosis would have been much brighter as to possibility of relief of the mechanical constrictive impediment to the heart's action by surgical means. It is of utmost importance for the general practitioner to have this syndrome in mind, and attempt to recognize it while radical means for alleviation are still feasible.

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APRIL, 1943

Editorials

THE CANCER PROGRAM

The Indiana State Medical Association has for the past ten years had a committee known as the "Committee on the Control of Cancer." The need for such a committee became apparent because of the ever-increasing number of deaths from this disease, as shown by the Bureau of Vital Statistics. The rate per 100,000 persons has increased from 38.7 per cent in 1900, to 127.1 per cent in 1942. These figures tell their own story. Pulmonary tuberculosis showed a death rate of 175.7 per cent in 1900, and of 36.2 per cent per 100,000 in 1942. Forty years ago more than four times as many persons in Indiana died of tuberculosis as were reported as having died from cancer. Organization of the lay and medical population to combat tuberculosis has reversed these figures. In 1942, three times as many people were reported as having died from cancer as from tuberculosis.

Cancer is not contagious and has not proved to be spectacular from the standpoint of organizing a campaign to combat it. Contagious diseases, such as typhoid fever and smallpox, have been almost completely eliminated because of public health activity and legislation.

This disease, once established, has the distinction of taking the life of the patient unless it can be destroyed or arrested. All forms of cancer have been adequately studied, and a more or less standardized procedure laid down for making a diagnosis and for selecting the proper treatment. The success of the treatment in the curable cases depends solely upon an early diagnosis and upon adequate treatment given immediately.

Success in the above program presupposes that the patient has knowledge of the signs and symptoms of early cancer, that he goes immediately to a physician, and that the physician is conversant as to the proper methods of diagnosis and treatment. Facts contradict such suppositions. In this issue will be found a splendid article on the early diagnosis and treatment of cancer of the cervix. Each member of the association should read this very carefully.

The Women's Field Army of the American Society for the Control of Cancer is active throughout the state, and has an organization similar to that of the state medical association. The district counselors and medical society officers are urged to co-operate with their representatives. Talks before lay groups, on the early symptoms of cancer, and medical society programs for the physicians can be arranged. It is the goal of the "Committee on the Control of Cancer" and the "Women's Field Army" to carry the facts of *early diagnosis* and *immediate adequate treatment* into every home in the state of Indiana.

Cancer is an *individual* and *personal* hazard and often becomes an economic as well as a family burden. The individual's chance to avoid, or to survive if afflicted with a curable form of the disease, depends upon his or her knowledge of the first symptoms or physical changes which may indicate cancer. Let's not deny any individual this opportunity. The *danger signals* for the laity are described in a pamphlet, a supply of which should be kept in your waiting room. Your friends and patients need this information.

April is Cancer Control Month. Women are especially interested in cancer education because this disease is the chief cause of death in women from the ages of thirty-five to fifty-four. It is estimated that 75 per cent of these women could be cured, or the disease arrested, by early diagnosis and prompt treatment. During April, the Women's Field Army is asking for the enrollment of one member from each household, with a dollar subscription, to support the educational campaign. It is hoped that our members and their wives will offer their services to the local organization of the Women's Field Army. The following statistics are approximately correct and prove the need for the program:

State of Indiana—Deaths 1942

Cancer	4,371
Tuberculosis	1,244
Infantile Paralysis	18

Money collected to combat these diseases—1942

Cancer (Collected by Women's Field Army)	$ 9,440.82
Tuberculosis (Red Cross Seal Sales)	$311,827.24
Infantile Paralysis (Collected by National Foundation for Infantile Paralysis)	$ 79,753.00

INDIANA'S INDUSTRIAL HEALTH CONFERENCE

Another "first" for Indiana Medicine came to a successful conclusion at the termination of the conference on Industrial Health on February twenty-sixth, in Indianapolis. This conference was a direct result of the Indiana State Medical Association wanting to do something to further the war effort by insuring adequate medical care for our industrial workers.

Throughout the country younger men engaged in industrial medicine were being called to the colors with the result that thousands of workers found themselves without medical care. Should this situation continue, our war production would decrease due to various factors. Without adequate medical services to workers and without medical control of various operations, absenteeism due to illness would increase to alarming proportions. Without medical control, absenteeism would increase because of the increased number of hours worked; the inexperienced help used; the changed composition of our labor force, for women and physically handicapped are replacing our young workers; and the introduction of new chemicals in the manufacturing process.

To insure adequate production for our service men, every worker should be on the job every hour every day. Anything short of this at this time, sabotages our war effort. Thus, illness becomes a powerful, subtle saboteur. Dr. C. D. Selby, chairman of the Industrial Health and Medical Committee of the Procurement and Assignment Service, recognized this, and while taking a walk with Tom Hendricks discussed the situation with Tom. This discussion culminated in an agreement whereby the Indiana Medical Association would try to work out a plan so that trained medical replacements could be offered industry should industry be left without medical services.

This problem was turned over to Dr. E. S. Jones, chairman of the Committee on Industrial Health of the Indiana State Medical Association, and Dr. Louis Spolyar, chief of the Bureau of Industrial Hygiene of the Indiana State Board of Health, and a plan was worked out by this group. In co-operation with the state Procurement and Assignment Service, physicians are notified of existing vacancies and trained if necessary. Training programs have been set up by the association. Thus, Indiana industries can, and will, be staffed with trained medical men.

The two-day conference in Indianapolis was designed to be a refresher course for all interested in industrial medicine. The Committee on Industrial Health arranged for nationally-known speakers and the program read like a "Who's Who" in industrial medicine. Emphasis was placed on subjects that required immediate solution and attention of industrial physicians. The leading occupational diseases in Indiana are dermatitis, lead poisoning and silicosis. These were authoritatively covered by Doctors Peck, Kehoe and Gardner. Traumatic surgery, the next major activity of an industrial physician, was adequately covered through a symposium.

All in all, Indiana physicians received authoritative information on all aspects of industrial medicine. A plan was worked out so that Indiana industries could be assured of adequate medical coverage, and organized medicine can justly feel proud of its efforts to further prosecute this war on another front—the industrial front. Chalk up another *first* for Hoosier Medicine, and orchids to Doctor Spolyar and the Committee on Industrial Health.

THE GENERAL ASSEMBLY — 1943 MODEL

As the late Will Rogers expressed it, "All I know is what I see in the papers." Not once during the recent law-making session did we grace the legislative floors, but we did manage to read the three Indianapolis daily papers, so gained a fair cross section of what went on.

Like most legislative bodies that are politically top-heavy, the 1943 session presented a somewhat kaleidoscopic picture. Measures that during the pre-session period seemed certain to be enacted fell by the wayside. It had been predicted that changes of some import would be made in the liquor laws, but these did not come to pass.

"Salary Grab" bills were numerous, some of them "receiving the nod," most of them failing to get much recognition. A measure to allow something like five dollars per day to cover the "unforeseen" personal expenses of the members seemed to meet with much favor and finally was enacted.

From our standpoint, it would seem that we fared rather well at the hands of the Solons. House Bill No. 28, known as the "Chiropractic Bill," came in for much attention, probably due to the fact that its author and sponsor is a cultist of that faith. However, when the bill came up for second reading, it was indefinitely postponed by a vote of 30-23.

Another cult bill, known as the "Naturopathic Bill," was killed before it had become well started through the mill; by a unanimous vote the bill was indefinitely postponed.

The physical therapist measure became jammed in the closing days and did not get out of committee.

A measure which sought to remove the injunction clause from the 1927 amendment to the Medical Practice Act was withdrawn.

A cult measure, designed to define the "healing arts," died in committee.

Another measure, one which smartly smacked of being a "grudge" measure and which would have opened all hospital staffs to all licensed practitioners, was still in the hands of a senate committee when adjournment came along. This was a particularly vicious bill.

A House measure, providing for direct payment to physicians for their care of welfare clients, passed both the House and Senate and was expected to receive favorable action on the part of Governor Schricker. Thus ended one of the most unfair procedures in the old Welfare Act.

Numerous other measures, many of them with much merit, were caught in the final-days-jam, and it will be some time before their true fate is known. Then, too, the Governor has certain prerogatives as to bills that reach his desk after a certain date, so a final recapitulation of all measures of interest to the profession cannot be made at this time.

Much disappointment has been expressed as to the legislature in general; it had been hoped that too much politics would not be displayed, that on the other hand the two bodies would be war-minded and give us a demonstration of practicality.

BASE HOSPITAL NO. 32

On March seventeenth forty-five doctors and dentists, most of whom are from Indiana, entrained for Camp Bowie, Texas, together with a full complement of nurses, orderlies, dietitians, et cetera, where they will undergo training for a period of several weeks, prior to embarking for overseas service. This hospital unit is known as the Indiana University Medical Center Unit and was commissioned several months ago, the induction ceremonies carried out on the Medical Center campus.

Officers in direct charge are Lieutenant Colonels C. J. Clark for the medical section and C. F. Thompson for the surgical unit. Nurses to the number of almost one hundred are members of the unit, and the several hundred persons in the outfit will be prepared to take over a hospital of 1,000 beds as a minimum, or 2,000 to 4,000 in an emergency.

The medical and dental officers of the unit come from every part of Indiana, and a few from adjoining states, a list of whom reads as "Who's Who" in Indiana Medicine.

There is more than a bit of sentiment about the departure of this unit; it recalls the days of World War I, when the Lilly Base Hospital No. 32 left for overseas service, where they carried on with full credit to our state and to their professions.

When the present unit left Indiana it carried with it the best wishes of everyone, from Governor Schricker down through their hosts of professional friends, their families and intimate acquaintances, as well as every resident of the Hoosier state.

With Colonels Clark and Thompson at the head it is assured that their war services will be of the highest order and that their return will be welcomed with an acclaim for a duty well performed.

THE JOURNAL joins all of Indiana in wishing them Godspeed and a safe return.

THE PASSING OF "UNCLE JEFF"

John Finch Barnhill, M.D., was Hoosier-born, Hoosier-educated and spent practically all his seventy-eight years in his native state, for the past few years residing in Florida, from whence he came to make regular visits to his home-state friends.

The medical career of Doctor Barnhill was a long one, years filled with many activities, to the degree that he was often termed a "busy" man. Some forty-four years ago we were privileged to sit in his classes in medical school, and all through the intervening years it has been our pleasure to have known him most intimately.

As a teacher he excelled, even in the older days when he held the chair of physiology in the old Central College of Physicians and Surgeons. Later, when he became the head of the Department of Otolaryngology, in the Medical College of Indiana, and still later in the Indiana University Medical School, his teaching talent had come to be recognized outside the state and nation.

He was an authority on head surgery, the various editions of his book on that subject being recognized as "tops" in every corner of the world.

A man of most pleasing personality, a great friend of the younger men in the profession, his passing is noted by all who knew him, which means thousands of physicians.

THEN AND NOW

Just twenty-five years ago Indiana Medicine was much perturbed concerning the status of our state in the matter of medical enlistments. Our standing, as of the month of May, 1918, was forty-second in the roll of states, certainly not a record of which to be proud.

Voluntary enlistment had been called a failure, and we were being requested by the office of Surgeon General Gorgas to furnish, at once, four hundred additional medical officers. We had no Procurement and Assignment Service, nor did we have a working plan within our state organization. At this time the matter of medical enlistments was presumed to be handled by the medical section of the Indiana State Council of Defense; J. Rilus Eastman was the Military Aide, and Governor Goodrich was nominally the head of the enlistment program, with Albert E. Sterne as his immediate assistant.

We recall that for seven consecutive Sundays members of the medical section met at the Indianapolis University Club, Governor Goodrich attending each of these meeetings. At each succeeding meeting the call from Washington became more and more urgent until, instead of a "call," what amounted to a "demand" was made that four hundred medical enlistments be secured right now. Lusitania Day was nearing, and all over the nation medical groups were to observe that anniversary by holding meetings, the chief purpose of which was

to stimulate medical enlistments. With the record in Indiana being what it was, our problem was more acute than that of other states.

On Lusitania Day it is safe to say that over ninety per cent of the Indiana physicians attended meetings of their local societies; these meetings were addressed by members of the State Council and by medical officers from nearby camps. As a result of this plan we obtained numerous enlistments, but not enough to meet the number demanded by the Surgeon General. So it was that an intensive survey of the medical personnel of Indiana was undertaken. When this had been completed, we had a definite picture of the situation. We knew the financial, social and moral status of every physician within the state and were prepared to "crack down" on those whom we felt should enlist. About the time this program began to "click," along came the Armistice which, of course, ended further consideration of the problem.

Contrast this with the picture as presented in World War II. In the latter instance the Indiana M-Day Committee was so far out in front that, so we are told, we were criticized by the American Medical Association headquarters for being so brash. However, the fact remains that the Indiana State Medical Association was two and one-half jumps ahead of the profession, when a suggestion came to us to do this or that, and we had the machinery all set for operation, the end result being that there was little or no confusion. We just put a few drops of fresh oil in the machine, pressed the starting button and got going — and how we did go! We went so fast that when the final compilation was made, Indiana medical enlistments were 136 per cent! In fact, we had so many men in service that we were advised to stop recruiting; that no more men from Indiana would be taken until several of our larger states had caught up with the procession.

Yes, the 1918-1943 records will invite comparison, comparison that is most favorable to us. The current record is due to several factors, chief of which is that the Indiana State Medical Association has an outstanding organization. We know of no other state that has a better setup, nor do we know of any other state organization that excels in committee team work. In Indiana we do not sit idly by and wait for some calamity to befall. We *anticipate* calamities of all sorts, and if they do come upon us, we always seem to have the answer as to what to do. Right now the Indiana State Medical Association has well-formed ideas as to how to handle emergencies that have not yet come to us. They may come; and if they do, we will know how to meet them; if they do not come, O. K. with us!

We are inordinately proud of the record of our state and local procurement committees. They have done an enormous job and have done it exceedingly well, and they stand ready to take on more and more jobs as the war goes on. So it is that there is a vast difference in "Then and Now."

Editorial Notes

A young Navy lad writes: "Here is a suggestion for THE JOURNAL; why not have a department similar to U.S.O., for maintaining the home morale?" His further comment was to the effect that the folk back home probably needed a morale stimulus as much as the enlisted man. And, he might be right about that point!

Better Business Bureaus throughout the country are warning motorists of the danger of using cheap "anti-freeze" mixtures, declaring that many of these compounds contain salts of various kinds which are deleterious to the motor parts. Better stick to the trade names that are known to you, since replacement of motor parts is an expensive matter and at times they are almost impossible to get.

We are pleased to note the action of the Indiana Supreme Court in upholding the Indiana State Board of Medical Registration and Examination in the matter of the revocation of the license of a drugless practitioner. Following this revocation, the man appealed to a circuit court, which held that the board was in error and restored the license. The Supreme Court, however, held that the local court was in error, so the offender is now permanently devoid of any license to carry on his practice.

The Indiana press seems to have taken kindly to the pronouncement of our Publicity Bureau, to the effect that there will be no breakdown in medical care for Indiana folk in spite of the fact that so many of our men are in service. Several papers have written editorials on the subject, advising their readers to have no fear on that score. Indiana Medicine fares exceptionally well at the hands of the state press; we like to think that this is because of the work of the Bureau, over the years, in maintaining a close personal relation with every newspaper in the state.

The February number of THE JOURNAL carried a news story from an Indiana paper concerning medical enlistments in the various states, commenting that the state of Illinois was one of the laggards in the matter. During a conversation with Dr. Harold M. Camp, secretary-editor for that state society, we were advised that these figures were in error—that Illinois had met her quota. A recent letter from Doctor Camp confirms this statement, showing that his state has met all requirements and stands ready to offer as many medical officers as are needed for future quotas. We thank Doctor Camp for the correction.

It seems that the Military News columns of THE JOURNAL are well received by our readers, and we wish that we could have more items for that department. We have to depend on the clipping bureau service, plus notes from the families of medical officers now in service. If you know of any changes of location, advancements in rank, or other similar news about the men in service, we would appreciate your sending the information in to headquarters.

The Laporte County Medical Society has gone in for a bit of advertising to the lay public, says the *Laporte Argus*. They are seeking to enlist the public in a program that will materially aid the physicians in their work during time of war. "Help Your Doctor," is the theme of the first advertisement published. Such appeals to the reading public are quite worth while; they tend to restore confidence of the public in a profession that of late has been assailed on every side. We are constrained to add that it might be worth while to take steps to restore the confidence of the doctors in some of their own organizations.

The recent Industrial Health Conference held at the Indiana University Medical Center might well have been termed a training school for physicians in war industries, since that is just what it was. The physicians who attended this series of lectures came away with a full understanding of the many problems confronting the physician who previously had not had occasion to render such service as that incident to the almost "over night" conversion of Indiana from a peace-time basis to one of full war-time activities. We trust that a few months hence a similar course of instruction may be arranged, to the end that those who were unable to take advantage of this course may be enabled to learn the newest things in the management of industrial injuries and diseases.

The various rationing programs afford additional opportunities for savings. No longer can we spend money for this and that; we are learning to do without many things that heretofore seemed daily necessities. Why not invest these savings in War Bonds? Along the same vein, it might be well to mention the fact that even though these bonds may be "cashed in" after sixty days, one should hold them until maturity. Awaiting our turn at the teller's window in our bank, we note that many government checks for $18.75 are being turned in. Too many purchasers of these bonds held them for the sixty-day period, then cash them and go out and buy another bond! Thus they get full credit for being regular buyers of bonds when, as a matter of fact, they have very little invested during the year. Buy bonds—then hold 'em!

The Whiting Clinic has closed for the duration. This group was organized a few years ago, under the leadership of the late Dr. Frank Doll. Then came "Pearl Harbor," quickly followed by enlistment of some of the members. Later on Drs. Walsh and Rudser entered the service, leaving Drs. Cogswell and Ferry to carry on. The latter two left with Base Hospital No. 32, and the clinic is now closed.

Census officials will have to add a new series of figures to their comptometers if the present birth-rate increase in Indiana prevails. The figure for 1942 is an all-time record, 73,357 births having been recorded. This is at the rate of 21.4 per 1,000 population, the 1936 rate having been 15.5. In the same statement it is said that for the year 1942 there were fewer deaths from tuberculosis, typhoid fever, diphtheria, scarlet fever, pneumonia, diabetes and cerebrospinal fever than in former years. As usual, cancer, heart disease and Bright's disease took the highest toll.

We are in the midst of war-garden-planning—and quite a job it is. For years we have listened to the agricultural urge, come springtime, even though our efforts amounted to nothing more than planting a few onion sets, a row of radishes, beets, beans and such truck, but last year we launched into a larger program, resulting in a rather marked addition to the family larder. This year we plan still greater achievement, having taken over a vacant lot nearby, and we hope to have to build an addition to our fruit cellar to take care of the canned products that will be accumulated during the next six or eight months.

We hear much about scarcity of food in this country, some even going so far as to predict a famine. There never has been a famine in this country; on occasion certain food shortages have arisen, but other foods were to be found in their stead. We are not an economist, nor are we possessed of an unusual degree of knowledge as to food supply, but our common sense tells us that a nation so vast as ours surely can produce every needed food, with a large surplus for our Allies of the Lend-Lease Program. Two Hoosier farmers, Townsend and Wickard, hold responsible "food supply" positions down in Washington, and for the life of us we do not follow them in all things. We have had too much "plow under," too much "don't plant more than so much of this or that," in our opinion. What the nation needs, to assure an adequate food supply, is to turn the farmers loose, see that they get help, *see that they get the necessary machinery*, and we guarantee that there will be plenty of food for all.

A neighboring state society reports as follows: "At a recent postgraduate meeting conducted by our society there were approximately three hundred physicians present, and nearly one hundred officers from Camp ——. All who could possibly get away were instructed by their commanding officer to be there, and the only one missing was the officer of the day who had to stay at his post." Congrats to our neighbor state for attaining their objective in getting their men to their meetings.

The *Anderson Bulletin* suggests a "rationing" of doctors; by that the editor does not mean that anyone should go without necessary medical attention, but directs attention to the fact that many physicians are now in service and that "luxury medical service" is out for the duration.

Along the same lines, the *South Bend Tribune* calls attention to the fact that some folk resent not being able to get the medical attention to which they have been accustomed, declaring that such an attitude is most unfair.

The *Marion Chronicle* observes, "Doctors, perhaps more than any other group next to the service men, are making real sacrifices in this war."

We appreciate these comments from the Indiana press; they indicate that the editors of our newspapers are observant folk and understand medical conditions as they really are. We of the profession well know that Indiana folk will be cared for, medically, although they may have to forego some of the really unnecessary attention to which they have been accustomed.

"Living Up to Tradition" is the title of an editorial which appeared in the *Cromwell* (Indiana) *Advance* for February 18, 1943, from which we quote as follows:

> "The medical profession hasn't done a lot of talking about the 'sacrifices' its members are making. And yet doctors, perhaps more than any other group next to the service men, are making real sacrifices in this global war.
>
> "Thousands of them have voluntarily given up their practices. They live in the fox-holes with the soldiers. They fight and die with the Navy and the Army. They perform miracles amid blood and suffering. Gone is the business for which they spent so many years in preparation, often on a financial shoe-string.
>
> "The doctors left at home are making sacrifices too. Men who should be enjoying the leisurely aftermath of useful careers are back in the harness, working at a killing pace. They are on duty twenty-four hours a day—and they don't yell for time-and-a-half when Mrs. Jones is having a baby at 3:00 A.M.
>
> "The doctors are carrying out the tradition of American Medicine in every emergency. Their example might well be followed by workers in other fields."

The city comptroller of Evansville, in addressing a health group in that city recently, stated that politics was not wanted in the new setup recently instituted there. Dr. E. A. King is the new full-time health officer and made it clear that all employes of the health department were to be continued on a merit basis. With such a plan in operation in that city, together with the excellent program that long has been carried out by Dr. Minor Miller in his V.D. clinic, which has achieved more than local notice, it would seem that Evansville citizens could reasonably expect their city to take a top rating in matters pertaining to health. Evansville has of late become a top-ranking city as regards wartime activities; thousands of men and women now being employed there in various plants that are on a full war-production basis, hence, the dire necessity of unusual health protection measures.

Press reports indicate that the chiropractors are much "perturbed" over the failure of their bill for a separate licensing board in the recent legislative session. The president of their state organization is reported to have addressed a recent "chiro" convention, declaring that the Indiana State Medical Association is to blame for the defeat; that said association lobbied in the general assembly, thus preventing the drugless cults to get a board of their own and thus "regulate the profession." We are constrained to wonder about this "lobbying" business; our understanding is that the chiros not only were active on behalf of their bill, but they had a sizable "war chest" with which to carry on. Nor do we understand their position; 'way back in 1927 they were given official recognition, via legislative action, and hundreds of them were duly licensed. At the time of the enactment of the 1927 amendment it was made clear that drugless practitioners would be licensed in the future *if* they met the requirements exacted of other practitioners of the healing art. This, of course, meant that the applicant must show completion of a pre-professional course of study in a recognized institution of learning, plus a four-year course in an *approved* school of drugless therapy. These conditions were by no means impossible, but they did prevent — as they were designed to do — promiscuous licensing of any and all who brought in a diploma. Drugless folk of our acquaintance profess to be ready to heal the sick; many of them are more than blatant in their advertising. We opine that it is just as important for a drugless practitioner to be thoroughly qualified as it is for other practitioners to show that they are duly qualified. It is probable that the "burr under the tail," placed there by the activities of the Indianapolis Better Business Bureau had quite a bit to do with stirring up the drugless folk, and it is hoped that the Bureau will continue weeding out the more flagrant violators of our excellent Medical Practice Act.

President's Page

Medical Schools

The medical schools have made such a rapid expansion in their preparation for a speeded-up program that it has placed a very heavy burden on the faculties. This is especially true where a great deal of the teaching is carried on by practitioners of medicine whose services are rendered voluntarily.

In our own medical school at least 60 per cent of the active teaching force is in the armed service, leaving only 40 per cent to carry on with a 33⅓ per cent increase in the program. The school is now operating the year around. This is true not only of the teaching staff but of the entire staff of the university hospitals. With the stress of war the student body is on a keener tension than normally, and the faculty must of necessity feel the strain and tension from the extra burden placed upon them.

O. P. A.

The medical practice will be affected by the rationing of some types of foods which, of necessity, are important to the welfare of certain types of patients who need selected diets, i.e., diabetes, et cetera. I have been told that individuals have come to the rationing boards with certificates for selected foods which are out of all reason. These certificates are purported to have been signed by physicians. The members of the board have been very gracious, but they think that many of these certificates have been forged, while, of course, many have been bona fide signatures. Physicians should exercise good judgment when they issue certificates for extra rationing points in order to get the proper diet for patients who cannot obtain proper food from unrationed products.

An advisory staff has been set up by the state association to help the O. P. A. select a minimum and maximum amount of rationed food to be issued to these patients. This staff will serve to guide the amount of legitimate food points to go to patients who are truly in need of them. Therefore, let us all be cautious in issuing such certificates to patients.

The Legislature

Again the legislative session has closed for another two years, unless some emergency makes it necessary for it to reconvene.

I want to thank the members of the Indiana State Medical Association for their fine co-operation during the 1943 session. I would be remiss if I did not publicly express my sincere gratitude to the members of the Legislative Committee, and especially to the co-chairmen, Doctors Norman Beatty and J. William Wright.

On the whole, the medical profession in Indiana fared very well during this session. We might, of course, have been better off if some matters could have been left as they were, but only time will tell.

I also want to thank those members of the legislature who aided us with our problems, and they may rest assured that their assistance was highly appreciated by the entire membership of the Indiana State Medical Association.

J. H. McCarty

THE URGENT NEED OF A CANCER CONTROL PROGRAM

(A Preliminary Report)

JOHN T. DAY, M.D.

INDIANAPOLIS

Since February, 1942, pursuant to an invitation to submit a project on cancer research emanating from a large endowment devoted to the aid of cancer research, I have made an intensive study of the cancer problem in general, and have had personal communication with many members of the medical profession on various aspects of an approach to cancer research.

During postgraduate work at the Brady Urological Institute with Young and Geraghty, in 1916 and 1917, I had my first real clinical experience with these diseases. At that time I had the good fortune to be in on the summation of clinical evidence by Young and Geraghty on cancer of the prostate and cancer of the bladder. The confusion as to etiology, the lateness of consultation, the inadequacy of roentgenologic science and the deficiency of pathologic information have changed little since then, clinically, towards prevention of cancerous disease.

Recent progress in cancer research has developed such understanding of these diseases that it displaces in relative importance the genetic and senility factors. The occasion is removed for leaning on central causative factors which have been the background of so much pessimistic indifference towards development of cancer control and prevention. Ewing,[1] Voegtlin,[2] and Cramer[3] have ruled out the consideration of a universal causative agent of the disease. Each has indicated the necessity for a particular approach to the biology of the organ attacked by the cancerous process.

A biochemical institute directed towards the study of carcinogenic agents, nutrition, and general biological phenomena of the cancerous patient is urgently needed. Recent developments in the biochemistry of vitamins, carcinogens and morphogenesis has created a more hopeful outlook on the general problem. It would seem that we are now definitely on the threshold of better identification of the etiology of cancerous processes, as we were on infectious diseases when Pasteur disposed of the false theory of spontaneous generation of infections. A recent survey by Hartwell,[4] of the National Cancer Institute, of compounds for carcinogenic activity indicates that 169 agents of 696 compounds tested exhibit definite evidence of carcinogenic activity, twenty-three of which produced papillomas. The carcinogenic potency of an agent depends upon many conditions. There is growing evidence of an organ specificity and an organ selectivity for the carcinogenic agent.

The individual scientist or clinician can never hope to follow through his own problem with a proper perspective. The medical profession needs the assistance of epidemiological studies.[5] It also needs more and better provision for free tissue diagnosis, which necessarily should be subsidized by the state. The time element involved in the development of the disease; the insidious character of the precancerous condition; the complexity of the various sources and actions of the carcinogenic agent, whether these be related to the diet, the air breathed or the biochemical disturbances of the endocrine system demand the function of full-time specialists to analyze the growing mass of evidence on these factors that coalesce to confuse our approach to prevention and treatment.

Better understanding of nutrition alone may prevent more cancer than we cure by surgery or biophysical agencies.

The state of Indiana is seriously in need of a cancer control program that is commensurate with the incidence of the disease. Four thousand deaths occurred in our state during 1941. Former Commissioner of Public Health, Dr. Verne Harvey, estimated that approximately ten people were seriously affected in some way by each death.

A thorough, careful estimate of the necessity for acceptance of cancerous process as a public health problem was made by the New York Legislature Cancer Commission[6] in 1939, which stated, "Cancer is the major disease problem of our day. Among the well-defined pathological processes which cause death the neoplastic process now occupies first place, and there is abundant evidence to indicate that its relative importance will continue to increase."

This Cancer Commission recognized the development of five principal methods of control; namely, the Central Cancer Institute, the State-wide Tissue Diagnostic Service, the Tumor Clinic in the general hospital, public education, and the public

[1] Ewing, James: Preface to Ewings Neoplastic Diseases, 4th Edition, W. B. Saunders Co., 1940.

[2] Voegtlin, Carl: The Federal Cancer Control Program, and The Approaches to Cancer Research, *J. of Nat. Can. Inst.*, Vol. **1**:11, (Aug.) 1940.

[3] Cramer, William: The Origin of Cancer in Man, *J. A. M. A.*, **119**:309, (May 23) 1942.

[4] Hartwell, Jonathan L.: Survey of Compounds Which Have Been Tested for Carcinogenic Activity, *Bulletin of the Nat. Can. Inst., Nat. Inst. of Health*, 1941.

[5] Voegtlin & Alvarez: *J. Nat. Cancer Inst.*, **1**:555, (February) 1941.

[6] Report of New York State Legislative Cancer Survey Commission, State of N. Y. *Legislative Document, No. 64*, 1939.

health administration. It is deemed important to quote their conclusion:

"The deficiencies of these single methods, and each has its deficiencies, rest upon the innate nature of cancer as a disease. The essential feature of neoplastic disease, its insidious, symptomless, and often cryptic onset fails to impress the individual even when later, mild symptoms ensue. This means that a high proportion of patients will not seek advice until comparatively late in the course of their disease. Conversely, when suspicions are aroused and consultation sought, diagnosis may be extremely difficult and this leads to delay on the part of the physician, often through no fault of his own but, nevertheless, with serious consequences to the patient. Any cancer control program in the future must correlate the methods which we have enumerated into a well co-ordinated program designed, first, to bring the public to the doctor early in the course of the disease; and second, to bring to the profession at large adequate facilities for the recognition and treatment of cancer in its earliest forms. It is from this standpoint that we have sought to analyze the public, professional, and physical facilities in New York State, which are devoted to these ends and therefrom point out a program for the future which we will meet as we find them."

Current information on public attitude indicates the willingness to finance political support; e.g., federal aid, as expressed by the unanimous support of Congress in 1937 towards implementation of research by federal aid and the promotion of a federal control program. Since the inception of state aid in Massachusetts in 1927, thirty-nine states of the Union have accepted cancerous disease as a public health problem, rendering aid and management by various forms of state subsidy. The Cancer Commission of the State of Missouri[7] dedicated a million dollar hospital on April 26, 1940.

In spite of the fact that we are fighting a war on many fronts, it is believed that the profession should assume the initiative in obtaining an economic subsidy for the development of a control program that is commensurate with the rapidly growing incidence of these diseases as a health problem. It is poor professional discretion not to go after the proper public health assistance implementing aid to professional understanding and management of these diseases.

The appointment of a cancer commission should be secured at the earliest opportunity, with authority to make a survey of various control measures, and their functional efficiency, now operating in various communities throughout the country. Particular emphasis should be made to secure a subsidy for hospital center activities, wherein we may be guided in the management of cancer by the fundamentals of our local experience and not by those developed in remote communities such as Texas or Massachusetts.

A current advertisement presented by an aerodynamic concept of the future presages the urgency of action on these diseases in quoting Doctor Crile, "Some day treatment of disease will be confession of failure." Evidence is definitely present that hospital centers are beacons of real light on this very dark, Stygian morass of cancerous disease, inhabited by suffering patient and astigmatic guide. Contributions already made by hospital centers supported by the wisdom and faith of state, federal, and private endowment verify the practicability of employing the teamwork of full-time specialists in the basic sciences with the clinical and epidemiological approach to these diseases.

709 Underwriter's Building,
Indianapolis, Indiana.

[7] The Ellis Fischel State Cancer Hospital, at Columbia, Missouri, Brochure by Cancer Commission of the State of Missouri, St. Louis, 1940.

ABSTRACT

POINTS OUT THERE IS NO KNOWN METHOD OF CORRECTING COLOR BLINDNESS

Despite unsubstantiated claims to the contrary, methods of correcting color blindness are unknown, *The Journal of the American Medical Association* for March 20 warns. *The Journal* says:

"Newspaper publicity given recently to an alleged cure for color blindness seems to emanate from one J. H. Lepper, optometrist, of Mason City, Iowa. In reply to inquiries concerning his procedure for correcting color blindness, a form letter is sent in which it is stated 'YES, YOUR CASE OF COLOR BLINDNESS CAN BE CORRECTED. IF WE DO NOT, IT WILL BE THE FIRST CASE.' The statement also suggests that cases take from two to three weeks for correction. If the patient comes to Mason City, $5 a day is charged. If the prospect finds it impossible to come to Mason City, Lepper says he can send the same equipment, involving two pairs of special colored glasses and one color vision test book, for a total of $25. A lamp with a reflector and a 60-watt bulb and a flasher if obtainable are also required for home treatment. The form letter is accompanied by a list of testimonials, none of them signed by the writer's full name. Color blindness is a congenital defect. Despite unsubstantiated claims to the contrary, methods of correcting this condition are unknown. Many letters sent to the headquarters of the American Medical Association indicate that men who have had difficulty in gaining entrance to the Navy or the air force have been given false hopes by this wholly unwarranted publicity for an unestablished procedure."

WOMEN'S FIELD ARMY FOR THE CONTROL OF CANCER

MRS. OLIVE BELDON LEWIS*
INDIANAPOLIS

The name "Women's Field Army of the American Society for the Control of Cancer" may seem somewhat long and unwieldy, but it does express the relationship of the active working organization, a women's army, to its sponsoring parent organization, The American Society for the Control of Cancer.

In 1935 the American Society for the Control of Cancer completed a comprehensive and extensive program, consisting of lectures, exhibits, and distribution of educational material to members of the medical profession throughout the country. This foundation work had taken at least six years, and the directors of the society decided that the time had come for the initiation of a broad and permanent type of lay educational organization. Various types of programs and available personnel were evaluated. The following conclusions resulted:

1. The program should be primarily in the hands of lay women rather than men, for the following reasons:
   (a) It required intimate, sympathetic, individual contacts which would invade the homes and family life of many persons.
   (b) It required patience to a greater extent than any other public health problem.
   (c) It required volunteer work which would be time-consuming, continuous and detailed.
   (d) It dealt, at the outset, with types of cancer peculiar to women.
   (e) More women than men die of the type of cancer that is curable in its early stages.
   (f) Women presented themselves, and would continue to do so, for periodic examinations more regularly and conscientiously than men.
2. The most promising available group of organized adult women in America was the General Federation of Women's Clubs, which had many co-operating units in each state and already supported public health programs.
3. The program should be organized so that it would not conflict with any existing public health activity.
4. The program should be militant, aggressive, optimistic and imaginative in order to catch and hold the spiritual support of those who volunteered.

From the beginning the campaign against cancer has accepted these principles. Its symbol is a drawn sword. Its slogan is "Fight Cancer With Knowledge."

Following this method of approach, it was logical to think of the new organization as an army—a Women's Field Army—because it was intended to be in active contact and combat with the enemy—cancer.

Ever since it was organized the Women's Field Army has shown steady and impressive growth. The attitude of the medical profession has been a basic and vital factor in this growth. The American Society for the Control of Cancer has always been pledged to a policy of medical supervision in all of its activities, so that the program of the Women's Field Army could proceed no faster in its development than sanctioned by the medical executive committee in each state or locality.

On the whole, the reaction of the medical profession has been very co-operative and farsighted. They recognized the value of lay assistance in bringing patients to the doctor for early diagnosis and treatment. The trustees of the American Medical Association officially endorsed the work of the Women's Field Army.

This action brought the support of an important and valuable women's group, the Medical Auxiliary. Other national women's organizations followed suit and appointed members to the National Advisory Council of the Women's Field Army, each adding strength and new life to the movement.

The main objective of the Women's Field Army is the education of lay persons, especially women, concerning the danger signals of cancer; what to do about it and what the outcome of prompt action may be. At the outset no funds were available for this work. This constituted a challenge for the volunteer workers. An annual enlistment campaign needed to be conducted when as many persons as possible would be asked to join the field army.

April was picked as the best time for this enlistment drive; since it was felt that the spirit of sacrifice and of newly-aroused hope attendant upon the Easter season was the most favorable time to develop the proper attitude of the public towards the cancer problem. The value of April as the focal point of the campaign was materially strengthened and established by the action of Congress which definitely designated that month each year as Cancer Control Month, and authorized the President to issue a proclamation to that effect.

When the United States became actively involved in World War II, the Women's Field Army and the Board of Directors of the National Society faced the problem of the fate of their program for the duration of the war. They recognized that the control of cancer was a continuing responsibility; that while the war might result in technical advances in the knowledge of surgery, radiology and many of

* Executive Secretary of Indiana's Women's Field Army for the Control of Cancer.

the infectious diseases, it would have only a negative and harmful effect upon the fight against cancer. The progress already made had to be protected and maintained.

Accordingly, it was decided that in spite of the distracting and competing demands upon the time and energy of women, the work of the Women's Field Army must be increased and concentrated to meet the challenge of the times.

The society, therefore, organized and conducted a school for its higher officers of the Women's Field Army during the period from September 14-26, 1942. The first half of the school was conducted at Bar Harbor, Maine, in conjunction with the Roscoe B. Jackson Memorial Laboratory for Cancer Research and dealt with the origin and nature of cancer as biological phenomena. The second week was spent in New York City. Here the program dealt with the clinical and educational aspects of the problem. The clinical subjects were treated in a series of talks by members of the staff of the Memorial Hospital and by supervised surveys of the work of that and other institutions. The educational program included observation and discussion of the work of the New York City Cancer Committee of the American Society for the Control of Cancer, and of its branches, and also a detailed consideration of the work and organization of the national society's central office as related to the Women's Field Army activities.

Forty-three states were officially represented at this school, Mrs. Beryl S. Holland, of Bloomington, State Commander for Indiana, attended. Eventually a more uniform, standardized organization, administered with greater economy and efficiency, should result.

April finds the Indiana Division of the Women's Field Army prepared to enter another enlistment campaign—the seventh. Throughout the state women are engaged in war activities with an intensity that makes it difficult to turn their attention to any other work. But the field army leaders are resolute. They realize that *health programs are more important than ever before.* The problem of health is essentially a women's traditional obligation. The community pays a high price when women forget or neglect this prime duty. Today our physicians are rationed, as well as tires, gas and food. . . . The load on the remaining physicians has become increasingly heavy.

WHAT ABOUT CANCER? Frankly the public should face the fact that it is on the increase. During 1942 the cancer casualty list for North America showed that more than 160,000 had died as a result of this disease, and that 500,000 were dying. Forty years ago the death rate from tuberculosis was almost double that of today's cancer rate. Tuberculosis is being stamped out because of the united efforts of doctors, nurses and the public to conquer this disease. Cancer needs the same active concern. The public must be educated to support the anti-cancer program. The Indiana Women's Field Army asks the co-operation of the medical profession in the April, 1943, Enlistment Campaign.

In Indiana The Women's Field Army has sponsored two out-state diagnostic clinics for the examination of all persons who wish to attend. On August twelfth a clinic was held at Greencastle, and on October twenty-first one was held at Linton. These were held under the auspices of the local hospital, all doctors in the county were invited to take part, and the purpose of the clinics was explained through the newspapers. About twenty-five persons attended each clinic. The findings in each case were sent to the personal physician of the patient. The women of the field army are eager to hold clinics in other parts of the state, for they believe that in this way they can be of real service to the community.

A High School Poster Contest was held during the month of January. Prizes totaling one hundred and twenty-five dollars were given in sectional and final contests. One hundred sixty-nine posters were entered, and the contest was quite successful although a comparatively small number of schools sent posters.

A High School Essay Contest, which closed March fifteenth, also brought the subject of cancer to the attention of the general public.

The Women's Field Army will appreciate whatever help the medical association can give during the April campaign.

ABSTRACT: STUDIES SUPPORT THE RULE TO OMIT DIABETIC PERSONS FROM DRAFT

Studies reveal that the present rule to omit diabetic persons from the Selective Service appears proper, Elliott P. Joslin, M.D., Boston, declares in the Medicine and the War section of *The Journal of the American Medical Association* for January 16.

He says that it is estimated that there are about 800,000 living persons with diabetes in the United States and that one might suppose that among them there would be many who could serve their country as members of the armed forces.

He says "both by arbitrary statistical estimates as well as by computations, based on an actual study and selection from a series of 8,500 persons diagnosed as having diabetes, that in the United States today the number of diabetic persons available for the Army or Navy lies between 4,500 and 1,800 men. With these figures in mind, the diabetic quota useful for military service is relatively so insignificant, the hazards which both the diabetic and the government would undergo if they were inducted are so great and the need for their services in civilian occupations, where they would be less exposed to complications, so apparent, that the present rule to omit them from the draft appears proper."

UNDER THE CAPITOL DOME

STATE BOARD MEETS

The Indiana State Board of Medical Registration and Examination met March twenty-third. The session was held in the offices of the board at the state house.

DANGERS OF HOME CANNING

Dr. Thurman B. Rice, secretary of the Indiana State Board of Health, is asking physicians to cooperate in the issuance of a warning of the danger that lurks in certain improperly home-canned foods.

Thousands of patriotic Hoosier families are planning to plant Victory gardens this spring; many of them may be planting the seeds of their own death. To prevent possible widespread tragedy, Dr. Rice is seeking the help of physicians in warning of the possibilities. The villain is Bacillus botulinus. This bacillus is not dangerous if it is in cans of foods of an acid content, such as fruits and tomatoes, but it is dangerous, in fact lethal, if in cans of foods with an alkaline base, such as meat, green beans, peas, and corn. Its spores grow in the absence of air; the bacillus thrives in basement and normal room temperatures. Within two to four months the bacillus develops a very powerful poison or toxin, Dr. Rice pointed out. Such foods are canned death. Half a bean pod of such poisonous food has been known to cause death.

The very foods which probably will be most popular with the Victory gardeners are the ones that are most likely to cause the trouble—beans, peas, spinach, greens, and meat. The spore of the bacillus itself is a hardy individual; it will outlive boiling for as long as three hours.

Victory gardeners should be advised that food whose reaction is alkaline should be cooked with a pressure cooker, or else not canned at all, Dr. Rice warned. The pressure-cooker method kills the germs; ordinary boiling will not kill it.

Canning will be a new experience for thousands of the Victory gardeners. Many housewives have canned fruits but not vegetables, and the vegetable canning will be a new experience for them. Dr. Rice urged that housewives be told to follow directions carefully in the use of pressure cookers, otherwise the value of this method of preparation will be lost.

Although the bacillus itself is hardy enough to survive boiling, the toxin produced is not so resistant. The poison may be destroyed after the can is opened, provided the contents are boiled after opening for a period of at least fifteen minutes. Merely warming the contents of an affected can will not destroy the poison and the food may prove fatal.

An epidemic of fatalities could easily result from the home-canning program, Dr. Rice warned. Physicians, whose advice will be followed by their patients although they might ignore warnings from other sources, are asked to help spread the word of the danger that lurks in improperly home-canned foods.

It is yet early, but not too early to begin to warn Indiana citizens, Dr. Rice said.

ABSTRACT

AMERICAN MADE ATABRINE IS AS GOOD AS THAT MADE IN OTHER COUNTRIES

American-made Atabrine, a substitute for quinine in the treatment of malaria, is as good as that made in any other country, *The Journal of the American Medical Association* declares in its November 14 issue. *The Journal* says:

"The most prevalent disease afflicting the populations of the world is undoubtedly malaria. How many cases occur each year is not known, but estimates place the number as high as 800,000,000. In local areas, particularly in the United States and Panama, drainage and sanitary engineering projects have had some influence on the incidence of malaria, but such measures cannot cope with the disease on a worldwide basis. Until 1932 the populations of the world were principally dependent on quinine and its derivatives for protection against the malady. With the discovery of Atabrine in 1932 a new and potent addition to the antimalarial armamentarium made its appearance. When the Netherland East Indies fell to Japan, the source of practically the entire world supply of quinine was lost to the United Nations. Atabrine, now officially recognized under the nonproprietary name quinacrine, assumed a role of unsurpassed importance as a strategic drug. Although it was originally prepared in this country from imported intermediates, in 1941 American chemists solved the problem of synthesizing the drug through intricate steps. The question has been raised whether the American Atabrine is identical in all respects with the German drug. This question was studied as a war project by the Division of Chemistry and Chemical Technology of the National Research Council. Extensive chemical, pharmacologic and clinical investigations were made in leading institutions throughout the country. The report released by the National Research Council establishes the fact that there is no longer reason to doubt that the drug manufactured in this country is genuine, comparable in every respect with that produced in other countries."

FINAL LEGISLATIVE REPORT

From a medical standpoint the 1943 session of the General Assembly of the State of Indiana that has just finished probably will be known in years to come as the session in which the most cult bills were introduced in Hoosier legislative history. Altogether there were six of them and—thanks to the many staunch friends of the profession in both houses and the hard-working local committees—not a single one of these bills, which were introduced to lower medical standards and to embarrass the profession at this time of national emergency, passed. When the legislators learned the real purpose of these measures it didn't take long for them to put each and every one of these cult bills to rest, either by ignoring them completely and allowing them to die in committee or by killing them by indefinite postponement on the floor. But the battle was not an easy one, for chiropractors, naturopaths, mechanotherapists, naprapaths, sanitologists and whatnot were on hand in large and impressive numbers, and rumors were afloat that their lobby was well-heeled.

Dr. R. H. Richards

Judges' Commitment Program

Undoubtedly, the second most important group of measures which came before the legislature, as far as the doctors are concerned, were the judges' commitment bills. These bills, three of them, passed and signed by the Governor, transfer the duties of commitment of indigent patients to the University hospitals and local hospitals from the judges to the county welfare boards. Generally, the judges had been doing the job in a most satisfactory manner, but they were determined not to continue this obligation, and your legislative committee and officers of the state medical association did not feel that the profession could well oppose the judges in their legislative battle, even though they realized full well that many complaints will come from some communities because of the change.

Other Measures

The group hospitalization measure failed to get out of committee.

The measure requiring recipients of state assistance to pay the doctors, institutions and hospitals directly, which was passed, probably will aid in stopping some rather flagrant abuses where pensioners received money for medical expenses and then failed to pay their doctor or hospital bills.

The bill throwing open hospital staffs failed to get out of committee and was not pushed by its author when he was told the harmful effect of such legislation.

Appreciation for Representative Richards

It is most difficult to designate special individual friends of the profession, but a special word of thanks should go immediately to Representative R. H. Richards of Patricksburg, who was the only physician in either house. Dr. Richards served as chairman of the important Committee on State Medicine and Public Health, in the House, to which was referred all the cult bills and many other key measures having to do with health, medical education and welfare. As chairman of that committee he did a masterly job under most difficult circumstances and refused to be rushed or high-pressured into precipitous and thoughtless action by a highly vocal and hyperactive minority cult lobby that opened up on him and his committee the very first week of the session and continued throughout the entire sixty days. To those of the committee who stood with him we express our thanks. Special tasks were well done by individuals, such as the effective speech against the naturopathic bill by Representative Posey Cooper, of Sellersburg, and the clear cut, incisive talk of Representative Lloyd Claycombe, of Indianapolis, in opposition to the chiropractic bill.

Although the fireworks were in the House, the heat generated by these cult measures was reflected in the Senate. There Senator Davies Batterton, of Greensburg, chairman of the Senate Committee on Public Health, always a friend of the profession, refused to allow the cultists to take the time and the mind of the Senate off important measures. Senator Batterton and his committeemen held the first cult bill introduced in many years in the Senate in committee despite urgent requests of the cultists to get it out on the floor.

Finally, it was always reassuring to know that Governor Schricker, Lieutenant Governor Dawson, Speaker of the House Creighton, and the state chairmen of both parties were "with us."

Representative Posey Cooper

The Future

This is not a bit too early to start planning for the next session, for many things must be done and two years roll around mighty fast these days. The first of these, of course, is to show your appreciation to your representatives and senators who were friendly. In conclusion, may we express our thanks again for your fine help and co-operation, for in the final analysis the battle was won by the doctors back home.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

NORMAN M. BEATTY — J. WILLIAM WRIGHT
Co-chairmen.

GEORGE DANIELS — A. P. HAUSS
JOHN HEWITT — H. L. MURDOCK
J. R. DOTY — J. S. NIBLICK

BILLS AFFECTING THE MEDICAL PROFESSION WHICH WERE SIGNED BY THE GOVERNOR AND BECAME LAWS

H. B. 358 (Ehlers-Denton)—Authorizes Common Council in cities of 70,000 or more population on petition of the city Board of Health to establish a venereal disease clinic and to levy a tax of not more than 3 cents for its support. Emergency.

S. B. 12 (Lane)—Provides that reports of births and deaths shall be made to the county clerk instead of county health officers, except in Indianapolis and cities of the second and third classes; provides that persons who have no birth certificates may obtain a "delayed certificate" from the State Board of Health by an affidavit form substantiated by two qualified persons.

S. B. 217 (Pell)—Permits trustees of county hospitals to accept endowments of property for benefit of the hospitals.

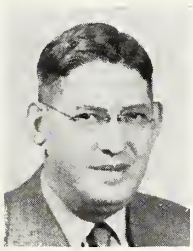
H. B. 111 (Teckemeyer-Evans)—Gives the county welfare department rather than the Circuit Court judge authority to recommend needy for admittance to the Indiana University hospitals.

H. B. 13 (Claycombe)—Amends the law to empower the county boards of public welfare, rather than the Circuit Court judges to recommend children of the needy for admission to James Whitcomb Riley Hospital for Children.

H. B. 268 (Claycombe)—Provides for establishment of five-member board of directors, appointed by the mayor, to head a division of hospitals in the Indianapolis Department of Public Health and Charities and to supervise operation of City Hospital.

H. B. 360 (Claycombe)—Amends county tuberculosis hospitals Act to provide for appointment of a business manager for Sunnyside Sanitarium to be in charge of purchasing supplies. Emergency.

S. B. 42 (Pell)—Fixes one year instead of three as the residence requirement in the state to gain admission to a feeble-minded school; also permits the superintendent of such schools to accept inmates from a county, if there is sufficient room in the school, even if such county has a proportionate number already.



Senator Davies Batterton

S. B. 134 (Howard V. Johnson) — Establishes sanitation requirements for establishments handling or processing foods; makes the State Board of Health the enforcing agency.

H. B. 104 (Moffett) — Increases annual renewal fee of podiatrists from $2 to $5.

H. B. 66 (Welsh-Steele)—Licenses frozen food lockers and places them under supervision of the State Board of Health; $15 a year for lockers with 200 compartments, plus $2 for each 100 additional compartments or fraction, but not to exceed $25. Sets up standards.

H. B. 103 (Ehlers)—Amends the dental law to prohibit technicians who make dentures, from practicing dentistry; makes slight changes in "unprofessional conduct" code and in advertising regulations.

S. B. 4 (Balz)—Licenses nursing homes, placing them under the jurisdiction of the State Board of Health; requires a registered nurse in attendance; sets up safety and sanitary requirements; fixes annual license fee at $5 for five patients; $10 for more than five and less than 11; $20 for more than 11 and less than 21, and $25 for more than 21.

S. B. 94 (Batterton)—Permits Indiana Board of Pharmacy to grant licenses as registered pharmacists to any person less than 21 years old if the person has all other qualifications now required by law; effective as a war measure until July 1, 1945. Emergency.

Representative Lloyd Claycombe

H. B. 271 (Conrad)—Authorizes school townships and corresponding civil townships to issue bonds to finance completion of school building or additions under construction. Emergency.

S. B. 135 (Howard V. Johnson) — Provides that x-ray films taken of school employes in health examinations shall be preserved for three years and shall be, upon call of the State Board of Health, delivered to that board or its appointed agent for review.

H. B. 471 (Bond-Henley)—Amends workmen's occupational disease law to require 30-day notice prior to termination of insurance policy by cancellation or expiration.

H. B. 31 (Teckemeyer-Coons)—Amends law on committing needy children under 16 years old to county hospitals, giving committing power to county welfare boards rather than Circuit, Criminal or Juvenile court judges.

H. B. 155 (N. Downey-Henley)—Amends public welfare Act to require that payments for medical care for recipients of assistance under the Act shall be paid directly to the person, corporation, association, institution or agency furnishing the care.

H. B. 11 (Henley and Lee)—Amends workmen's compensation law to increase maximum weekly benefit from $16.50 to $18.70 and the minimum from $8.80 to $10.01; increases maximum benefits from $5,000 to $5,500; increases burial allowance from $150 to $165; encourages employment of physically handicapped persons by eliminating from compensation coverage impaired members, such as an arm, but otherwise provides coverage; requires employers to provide artificial members; requires trial in criminal actions under compensation law in the county of the accident rather than in Marion County; requires employers to pay transportation costs of employes required to travel to take physical examinations, as well as their salaries if working at the time; adds loss of hearing in one ear as a compensable injury and provides 75 weeks' compensation for such injury.

H. B. 176 (DeHoff)—Amends public welfare Act to permit payment of assistance to any aged person who lives in or is a patient or an inmate in a private hospital, private home for aged, public or charitable hospital or institution, providing the recipient was a bona fide resident of the state for five years and of the county for one year before taking residence in the home or institution.

S. B. 220 (Aldridge)—Creates a placement agency under the State Board of Vocational Rehabilitation to place handicapped persons in jobs.

S. B. 62 (Phelps)—Provides for establishing a state hospital for treatment of crippled children, including infantile paralysis cases, in northern Indiana, north of U. S. No. 30; site to be chosen by a committee of four representatives and four senators; appropriates $250,000 for acquiring land and constructing building.

H. B. 12 (Henley and Kreft)—Liberalizes occupational disease compensation law by increasing the weekly maximum benefit to $18.70; increases maximum compensation to $5,500; sets funeral benefit at $165. Effective April 1.

BILLS FAILING TO PASS

S. B. 13—Repeals garnishee law. Died in Labor Committee of Senate.

S. B. 43—Maternity home bill. Passed Senate. Failed in House.

S. B. 69—Opens all hospital staffs. Died in Senate Committee.

S. B. 177—Naturopathic bill. Died in Senate Committee on Public Health.

H. B. 28—Chiropractic bill. Postponed in House on standing vote, 30-23.

H. B. 29—Most liberal compensation bill. Died in House.

H. B. 78—Naturopathic bill. Indefinitely postponed in House.

H. B. 162—State administrative board bill. Died in House committee.

H. B. 187—Physical therapists' bill. Died in House committee.

H. B. 192—Non-profit hospital bill. Died in House Committee on Insurance.

H. B. 294—Trachoma bill. Failed in House.

H. B. 317—Failure to report communicable disease bill. Died in House Committee on State Medicine and Public Health.

H. B. 326—Nursing home bill. Died in Judiciary A Committee of House.

H. B. 370—Concerns tuberculosis hospital patients. Died in Senate after second reading.

H. B. 393—Revokes Medical Practice Act injunction clause. Withdrawn.

H. B. 413—Food inspection bill. Died in Senate Committee.

H. B. 440—Defines "healing arts." A cult bill. Died in House Committee on State Medicine and Public Health.

ABSTRACT: FIND PUBLIC EDUCATION PROGRAM ON CANCER STILL IS INADEQUATE

The public education program on the cancer problem is still inadequate and ineffective, Charles R. Harms, M.D.; Jules A. Plaut, M.D., and Ashley W. Oughterson, M.D., New Haven, Conn., declare in *The Journal of the American Medical Association* for January 30 in a report of their study of the causes of delay in treatment of cancer in one hundred fifty-five patients.

It was found that only about one-fourth of the patients had read about cancer and that all but two of these had obtained their information from newspapers and popular magazines. Only two admitted reading public health pamphlets.

"Delay in the diagnosis and treatment of cancer," the three physicians say, "is one of the most important factors in the failure to obtain better results by the methods of treatment now available. . . . ."

They interviewed one hundred fifty-eight successive cancer patients as they were admitted to the New Haven Hospital or Tumor Clinic. Three patients came immediately to the hospital for emergency treatment, one because of intestinal obstruction and two because of hemorrhage.

"The definition of delay due either to the patient or to the physician," they explain, "must necessarily be arbitrary. It is also well known that the time required to recognize and diagnose a cancer which is visible on the exterior will be quite different from that on the interior of the body. . . . .

"Delay by the patient may be defined for purposes of discussion as having persistent symptoms for one month or longer before consulting a physician. Delay by the physician may also be arbitrarily defined as waiting for any period longer than three weeks after the patient is first seen during which a diagnosis may be established or a consultation requested. . . . ."

Eliminating the three patients who reported immediately for treatment the authors say that eighty-five patients, or 54.8 per cent, were responsible for the delay, while twenty-seven physicians, or 17.4 per cent, were said to be responsible. Both the patient and the physician were responsible for the delay in forty-three instances, or 27.8 per cent.

"The patient was found to be either wholly or in part responsible for the delay in one hundred twenty-eight instances, or 82.6 per cent," the three physicians found. "All but seven of the one hundred twenty-eight patient delays, or 94.5 per cent, were initial delays. The other seven did not follow the physician's advice in spite of his efforts. The problem, therefore, appears to be mainly the initial delay or the interval between the onset of symptoms and the first visit to the doctor. . . . ."

The causes for delay among the one hundred fifty-eight patients were reported to be as follows: symptoms "not serious enough," 56.9 per cent; negligence, 11.3 per cent; no delay on the part of the patient, 11.3 per cent; expense, 10.1 per cent; ignorance, 6.9 per cent; fear of cancer, 1.4 per cent; fear of doctors, 1.4 per cent; Christian science or other cult, 0.6 per cent.

Discussing these causes the authors say that "failure to attach sufficient importance to recognized signs and symptoms accounts for most of the delay. This is primarily an educational problem which is obviously not being met by present methods. The second most important factor defined as negligence may also in large part be corrected by proper education. The economic factor accounts for 10 per cent of the group. These patients recognized their symptoms for what they were, or at least as deserving medical care, but put off seeking medical attention because they did not know how to pay for it. It is noteworthy that fear of cancer plays a minor role.

Medicine Today

LABORATORY NOTES

This is the third of a series of short notes in which will be outlined various aspects of the use of laboratory tests. The increasing burdens of medical practice make it desirable to use all possible means to facilitate the care of patients, and the use of laboratory aids in the diagnosis and management of cases may often save time if the tests are carefully chosen to suit the needs of the moment. It is hoped that these notes may be helpful to the physicians of the state, and that they may be the means of saving a few minutes of their precious time.

MAILING BLOOD SPECIMENS

It is often necessary to send blood to the laboratory by mail, and the present shortage of laboratory technicians having deprived many communities of all laboratory facilities, the mail is being used more and more for the purpose of sending blood to neighboring laboratories for examination. Nothing is more annoying than to have something happen to these specimens, which will render them unsuitable for testing. For this reason it would be well to review some of the factors which most commonly cause loss or damage of the blood specimen in the mail.

Loss of blood specimens may result from a number of causes, but the most common of the mishaps will be found to fall in one of the following categories:

1. Damage to the blood specimen.
2. Breakage of the container.
3. Careless labelling.

DISCUSSION

1. Damage to the blood specimen

The most common cause of damage to the blood specimen is hemolysis, which frequently renders the blood unsuitable for testing. Hemolysis most frequently is caused by the use of a syringe which contains some water or alcohol. Also, if blood is overheated or frozen, hemolysis may result. Bacterial contamination will hemolyze blood if it is kept at room temperature too long. Another cause of hemolysis, which is often overlooked, is that of ejecting blood too forcefully through the needle, which ruptures the red blood cells.

Preventive measures

1. Always use a dry syringe, or one which is nearly dry, especially when drawing small quantities of blood.
2. Keep blood in the icebox until just before mailing.
3. Do not mail blood if it is likely to stand in the mail over the week-end or a holiday.
4. In very hot or very cold weather, try to mail the blood just before mail time.
5. Use sterile precautions in collecting blood and placing it in the container. Always use a sterile container.
6. Expel the blood from the syringe slowly, especially if the needle is of small gauge.

2. Breakage of the container

Blood specimens in the mail are too frequently damaged in transit. Usually breakage is due to improper packing of the test tube containing the blood. The stopper may be too loose and may be forced out by the splashing of the blood or by the expansion of the air in the test tube, or the stopper may be forced in too tightly, thus splitting the mouth of the tube. If blood is sent by air, it will almost certainly leak if it is placed in the customary corked test tube, due to the lower atmospheric pressure at high altitude and the consequent expansion of the air in the tube.

Preventive measures

1. Always use a regular specimen-mailing container if it is available. Laboratories will supply these on request. If such a container is not available, use a very rigid cardboard, wooden, or tin box which is much larger than the enclosed test tube, and use plenty of packing.
2. Be sure that the lid of the mailing container is screwed on securely and that it fits properly.
3. In closing the container, be sure that the top may be screwed on without forcing the bottom of the test tube against the bottom of the container, and also see that some of the packing separates the tube from the bottom of the container.
4. Fit the cork in the test tube snugly, but not too tightly. Inverting the tube will cause the blood to flow in between the cork and the glass, and this makes a satisfactory seal.
5. Be sure that there is no crack in the lip of the test tube, and that the bottom of the tube is not defective.
6. When sending blood by air mail, use a vial or small bottle with a screw top, so that changing atmospheric pressure cannot force the stopper from the tube.

3. Careless labelling

All too often specimens are sent to the laboratory without all the necessary information concerning the patient, the physician, and the test which is requested. Another common fault is the use of fictitious names. Sometimes there is no indication

to show what test is required, and often no return address is given. At times the cancellation of the stamps will obscure the address and name of the sender, and frequently the enclosed data slip is illegible.

Preventive measures

1. Enclose all pertinent data with the specimen. Do not send this material in a separate letter because the specimen and the letter may not arrive at the same time.
2. Label the container carefully and legibly, and place the return address on the inside as well as the outside of the container.
3. Give the patient's full name, and do not use fictitious names.
4. State clearly what test is desired.
5. In the case of serologic tests for syphilis, state whether the test is for premarital, prenatal, or diagnostic purposes, or whether the test is being used as a guide for therapy. All laboratories in Indiana which are approved for the conduct of serologic tests for syphilis must make a monthly report of the numbers of these various tests according to this classification.

The observation of these simple precautionary measures will prevent most of the accidents which result in the loss or destruction of blood specimens which are being sent through the mail. A few extra minutes spent in careful drawing, recording, and mailing blood specimens will often save long and inconvenient delays with their consequent disappointments and confusions.

INVALID DIETS AND FOOD RATIONING

Of interest to all who are concerned with diets for invalids is Ration Order 13, issued by the Office of Price Administration under date of February 9, 1943. This order covers all canned, dried, and frozen fruits and vegetables. Article II, Section 2.5 of the order reads as follows:

"Consumers who need more processed foods because of illness may apply for more points.

"(a) Any consumer whose health requires that he have more processed foods than he can get with War Ration Book No. 2 may apply for additional points. The application must be made, on OPA Form R-315, by the consumer himself or by someone acting for him, and may be made in person or by mail. The application can be made only to the board for the place where the consumer lives. He must submit with his application a written statement of a licensed or registered physician or surgeon, showing why he must have more processed foods, the amounts and types he needs during the next two months, and why he can not use unrationed foods instead.

"(b) If the board finds that his health depends upon his getting more processed foods, and that he can not use or can not get unrationed foods, it shall issue to him one or more certificates for the number of points necessary to get the additional processed foods he needs during the next two months."

The application form referred to above, OPA Form R-315, is apt to be somewhat confusing to patients. It is titled "Sugar Special Purpose Application" and was developed primarily to meet the need for home canning. It is being used temporarily until a more adequate form can be worked out.

It is anticipated that the procedure indicated in Section 2.5 may be changed somewhat in the future, in which case due notice will be given.

After consultation with Mr. James D. Strickland, state director of the Office of Price Administration, we find that the situation of supplying processed foods to patients who require an additional amount of these foods in their diet is becoming a tremendous problem for OPA. The policy of the Office of Price Administration is to be extremely lenient in all cases in order that no patients will suffer from the lack of these foods; however, they point out that some physicians are taking advantage of this situation and are writing statements for amounts of food that are unreasonable. Some physicians are also charging from two to four dollars for each statement furnished to their patients. May we again urgently recommend that physicians use their good judgment and give a little thought when issuing these statements to patients!

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*Members of the staff of General Hospital No. 32.**

Base Hospital No. 32, sponsored by Indiana University, has been activated and the members of this unit are now in one of our Army camps for final organization and disposition. Lieutenant Colonel Frank O. Alexander, of Washington, D.C., a regular Army medical officer, is the commanding officer; Lieutenant Colonel Cyrus J. Clark, of Indianapolis, is chief of the medical service; Lieutenant Colonel Charles F. Thompson, of Indianapolis, is chief of the surgical service; Major Glenn Pell, of Indianapolis, is chief of the Dental Service, and Major Charles Ingersoll, of Grand Rapids, Michigan, is chief of the x-ray service. Miss Aurelia Willers is the chief nurse.

MEDICAL OFFICERS

Lt. Col. Cyrus J. Clark
Lt. Col. Charles F. Thompson
Major Glenn Pell, D.C.
Major Charles Ingersoll
Major Charles Mahoney
Major Brandt Steele
Major Paul Fouts
Major James Browning
Major Eugene Boggs
(Withdrawn)
Capt. Otto Siewert
Major James Balch
Major Russell Hippensteel
Major I. J. Kwitny
Capt. Frank Jordan, D.C.
Major Jack Pilcher
Capt. Bernard Rosenak
(Withdrawn)
Major Paul Iske
Capt. William Lane
Capt. Carl Culhertson
Capt. Thomas Johnson
Capt. Joe West
(Withdrawn)
Capt. Wendell Shullenberger
(Withdrawn)
Capt. James E. Engeler
Capt. J. Neill Garher
Capt. Robert Amos
Major Fred Cheney
Major Dennis Megenhardt
Capt. John Haslem
Capt. Howard Cogswell
Capt. John Hash
Capt. Fred Reynolds
Capt. Bernard Martin
(Withdrawn)
Capt. Robert Oliphant
Capt. Charles Everett, D.C.
Major James Leffel
Major Donald E. Wood
Capt. William Norman
Lt. Dallas Fickas
Lt. George Davis
Lt. Jack Carr, D.C.
Capt. Robert Speas
Lt. Steven Johnson
Capt. John Ferry
Lt. John H. Smith
Lt. Robert Rang
Lt. William Hanning, D.C.
Lt. Donald Caseley
Lt. Doyle Pierce, D.C.
Lt. William Gambill
Capt. W. B. Rossman
Capt. David Engle
Lt. Lee Maris
Lt. Nicholas Topolgus
Lt. George Clowes
Lt. Theodore Mause

Five of the above officers have been withdrawn since this picture was made, and Second Lt. Richard Benson, M.A.C., and Second Lt. Charles Ross, Chaplain, have since been added to the unit.

NURSES, DIETITIANS AND THERAPISTS

Laura Davidson
(Withdrawn)
Mary Alice Pogue
Nellie Kalb
(Withdrawn)
Ellen Beasley
(Withdrawn)
Lucille Blaze
Hazel McClure
Martha McClain
Blanche Caskey
Frances Brown
Mrs. Helen Key Hoover
Anabelle Vargyas
Freda Stewart
Dorothy O'Bryant
Eileen Price
(Withdrawn)
Jean Coffey
Edna Teegarden
Martha Shufflebarger
Virginia Breiner
(Withdrawn)
Juanita Quinn
Frances Busse
Lucne Robbins
Anne Kilfoil
Marie Culbertson
Mildred Perkins
Rachel Husted
Joan Duffy (Dietitian)
Shirley Coglin (P.T.)
Marjorie Flugge
(Withdrawn)
Sarah Johnson (P.T.)
Ruth Gilespie
(Withdrawn)
Laura Tauzey
(Withdrawn)
Betty Jane Long
Ethel Willey
(Withdrawn)
Marjorie Holzhaus
Margaret Latham
(Withdrawn)
Martha Fallis
(Withdrawn)
Marion Fry
Marcile Seneff
Dorothy Hays
Mary Frances Faker
Marjorie Long
(Withdrawn
Mary K. Stuart
Rose Geckeler
(Withdrawn)
Betty Lehman
Betty Dodd
(Withdrawn)
Virginia Sharpe
(Withdrawn)
Mary Ellen Jack
(Withdrawn)
Florence Vote
Lois Beck
Hazel Mace
(Withdrawn)
Elizabeth Seery
Irene Tarczeuski

NURSES, DIETITIANS AND THERAPISTS

Elizabeth O'Connell
Mary Jane Hickerson
Frances Hellman
Marie Kaufmann
Theresa Palko
Margaret Allen
Wanda Plunkett
Della Boerger
Leota Bittner
Helen Cantwell
(Withdrawn)
Geneva Sims
Charlotte Bray
Juanita Gambill
Wilma Carr
Celia Burkhart
Aurelia Willers

Some withdrawals have also occurred among the nurses who were originally enrolled, and the following nurses, dietitians, and therapists have since been added to the group:

Dorothy Dugan
Ella Maxwell
Mae Thompson
Melba Disney
Frances Eddy
Virginia Fretz
Erma Hill
Patricia Hilliard
Hene Horst
Juanita Hubble
Adeline Johlonski
Anna Bauman
Angela Brinker
Mildred Ellis
Eva Floyd
Crystal Halstead
Annabelle Howarth
Lola Kendall
Mary Jane Mathis
Marjorie Metz
Josephine Murphy
Regina Murphy
Sarah Murphy
Mary Murray
Erma Scarborough
Dorothy Smith
Glenn Wildman
Sarah Wills
Leona Wisch
Jeannette Kennedy
Valeria Marciniak
Dorahelle MacKenzie
Lorraine McCuskey
Ann McGroarty
Alice Oshorn
Violet Sabol
Julia Skafish
Pauline Tate
Mildred Tumbas
Corinne Voight
Barbara Hudak
Josephine Metz
Sarah Price
Eleanor Palko
Cecile Gorzyca
Vivian Parr (Dietitian)
Grace McAlister (Dietitian)
Charlotte Anderson (P.T.)

* This photograph was submitted through the courtesy of the *Quarterly Bulletin* of the Indiana University Medical Center and was taken May 13, 1942, at the time of the commissioning ceremony of the hospital unit.

Military News

Captain D. Lee Andrews, of Clermont, is doing general surgery at the station hospital at Fort Knox, Kentucky.

Captain R. C. Badertscher, formerly of Bloomington, has been transferred from the Station Hospital, at Laredo, Texas, to the School of Aviation Medicine, Randolph Field, San Antonio, Texas.

Former Zionsville physician, Lieutenant Commander Lawrence S. Bailey, is a senior medical officer in connection with Naval Officer Procurement at Richmond, Virginia.

Promotion from the rank of first lieutenant to captain has been given Dr. George K. Balsbaugh, former North Manchester physician. Captain Balsbaugh is now serving overseas, in the South Pacific area.

A former Peru physician, First Lieutenant John B. Berkebile, is now stationed at Lawson Field, Fort Benning, Georgia, having been transferred from Cudahy Field, Wisconsin.

Lieutenant Robert M. McMichael, formerly of Muncie, has been transferred from Portsmouth, Virginia, to Indianapolis. He is serving with the Blood Donors Service of the American Red Cross.

Dr. Matthew Cornacchione, formerly of Indianapolis, has been promoted to a captain. He is stationed at Baer Field, Fort Wayne.

Captain Fred O. Clark, of Syracuse, who entered the service June 15, 1942, is serving at the Air Base at Fort Riley, Kansas.

According to a message received by Mrs. Bessie L. Kauffman, from the War Department, Captain Nelson N. Kauffman, former Indianapolis physician, is being held in the Philippines as a prisoner of the Japanese. He entered service in October, 1940, while an intern at the Indianapolis City Hospital, and volunteered for overseas duty in January, 1941. He was sent immediately to Manila, where he was attached to the Army base at the time that war was declared. Captain Kauffman's brother, Dr. Sidney A. Kauffman, also an Indianapolis physician, is serving as a captain in the British Isles.

Dr. E. H. Hall, of Dunkirk, who served with the Field Artillery Brigade, has been transferred from Camp Gruber, Oklahoma, to Carlisle, Pennsylvania, where he will receive special training. Dr. Hall is a captain in the United States Army.

Word has been received of the promotion of Dr. George W. Herrold, former Lafayette physician, to the rank of captain. Dr. Herrold is stationed at St. Joseph, Missouri, with the Medical Corps air transport command. He recently completed a course in field medicine at Carlisle Barracks, Pennsylvania.

Announcement has been made of the promotion of Dr. John R. Hurley, of Daleville, to the rank of captain. Captain Hurley is stationed at Fort Bliss, Texas.

Lieutenant Edward B. Boyer, formerly of Oaklandon, is serving at a United States Army Induction Station in Chicago, Illinois.

Promotion from the rank of first lieutenant to captain was given to Dr. Milton H. Omstead, former Petersburg physician. Captain Omstead had been stationed with a general hospital at Camp Carson, Colorado, but is now serving at the Borden General Hospital at Chickasha, Oklahoma.

Dr. John R. Phillips, formerly of Michigan City, who is serving at a base hospital in the U. S. Naval Service, has been promoted to a commander. He is stationed in North Ireland. Commander Phillips has the unique experience of having served in the Army, Navy and Marines.

Word has been received of the promotion of Doctor Don J. Wolfram, formerly of Indianapolis and Brownsburg, to Lieutenant Colonel in the Medical Corps of the Army of the United States. To the best of our knowledge Colonel Wolfram has the distinction of being the youngest doctor in the state of Indiana to attain the honor of Lieutenant Colonelcy. He is thirty-two years of age. Colonel Wolfram is a graduate of the Indiana University School of Medicine, was a resident physician at the Mayo Clinic in Rochester for three years and practiced internal medicine in Indianapolis for two years before entering the service in December, 1940. He is the son of Mr. and Mrs. P. J. Wolfram of Brownsburg. Colonel and Mrs. Wolfram and their daughter Gretchen are now at the Unit Training Center at New Orleans, Louisiana, where Colonel Wolfram is assistant director of training.

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Dr. Lloyd E. Rosenbaum, formerly of Anderson, is serving as a first lieutenant overseas. He can be reached through A.P.O. 3658, c/o Postmaster, New York City.

Word has been received of the promotion of Lieutenant Wendell C. Stover, of Boonville, to the rank of captain. Captain Stover is stationed at Camp Kearney, Nebraska.

Former Muncie physician, Dr. M. G. Schulhof, is serving as a captain at LaJunta, Colorado.

Commissioned a captain in the United States Army, Dr. Arthur A. Whitlatch, of Milan, recently reported for duty at the station hospital at Sheppard Field, Texas, having been transferred from Fort Francis E. Warren, Wyoming.

Lieutenant Thomas P. Walsh, formerly of Garrett, who entered service on December 10, 1942, is now serving in the AAFAFS, at Bryan, Texas.

Dr. Robert H. Williams, of Anderson, has been transferred from Camp Edwards, Massachusetts, to Camp A. P. Hill, Virginia. Dr. Williams is a captain in the United States Army.

Captain Bryce Weldy, formerly of Muncie, has been transferred from Salt Lake City, Utah, to Casper, Wyoming.

Dr. Gerald S. Young, of Muncie, has been transferred from Deming, New Mexico, to Randolph Field, San Antonio, Texas. Dr. Young holds a commission of first lieutenant in the United States Army Air Corps, and will take a special course in the school of aviation medicine, preparatory to becoming a flight surgeon.

In the Military News section of the last issue of THE JOURNAL we published considerable information concerning Indianapolis physicians now serving in the armed forces. The following news items pertain to additional Indianapolis members who are doing their part in the service of Uncle Sam.

Lieutenant Harry Aldrich is stationed at the Nashville Army Air Center, Nashville, Tennessee.

Lieutenant Frank P. Albertson is serving as a battalion surgeon. He can be reached by addressing him at A.P.O. No. 27, Postmaster, San Francisco, California.

Lieutenant Commander John W. Ferree is with the Post Medical Detachment, Marine Barracks, Parris Island, South Carolina.

Dr. Richard H. Appel is now a lieutenant commander and is serving somewhere in the South Pacific. He was formerly stationed at Great Lakes, Illinois.

Serving as a battalion surgeon "on the field," Lieutenant Commander Lester D. Bibler is with the United States Marine Corps, Fleet Marine Force, and can be reached by addressing him c/o Postmaster, San Francisco, California.

Information received reveals that Captain A. Ebner Blatt is acting as ward officer of a general medical ward at the station hospital at Fort Knox, Kentucky.

Lieutenant Samuel S. Caplin is now serving at a general hospital at Camp Carson, Colorado.

Lieutenant Matthew Cornacchione is stationed at Baer Field, Fort Wayne, Indiana, and is serving as chief of the surgical service at the station hospital. He recently completed a course in general surgery, given by the Pennsylvania, Jefferson and Temple universities.

We are informed that Lieutenant Commander P. K. Cullen is doing general surgery at the Naval hospital at Great Lakes, Illinois.

Aviation Medicine is the assignment of Lieutenant E. W. Dyar, who is serving on the Naval Aviation Cadet Selection Board at Kansas City, Missouri.

Captain C. Basil Fausset is doing elective and emergency surgery at the station hospital of the Aviation Cadet Center, at San Antonio, Texas. He also gives didactic lectures on neurological and thoracic surgery in connection with the School of Aviation Medicine.

Serving as chief of the surgical service, Captain Robert D. Fry is stationed at the camp hospital at Camp Breckenridge, Kentucky.

Lieutenant Arthur N. Jay is with the Armored Force School Dispensary at Fort Knox, Kentucky.

Lieutenant Loren H. Martin is at the station hospital at the Miami Beach Air Base Command.

We are informed that Major J. M. Masters is chief of the Section of Ophthalmology at the Ashford General Hospital, White Sulphur Springs, West Virginia.

Captain Clarence D. Mendenhall is stationed at the O'Reilly General Hospital at Springfield, Missouri.

Captain R. L. Fullerton is a ward surgeon at the station hospital at Fort Riley, Kansas.

Captain Buckman Gardner is serving as squadron surgeon with a photographic reconnaissance group somewhere in North Africa. He wrote, "Your sending THE JOURNAL is doing a lot in helping the men in the armed forces—keeps us in touch with other members and answers that 'I wonder what happened to' — question."

Lieutenant W. Stanley Garner is post medical inspector and chief of laboratory service at the station hospital at Fort Benjamin Harrison.

Lieutenant W. R. Griswold, of Indianapolis, who has been serving as junior medical officer on a heavy cruiser in the Territory of Hawaii, is now home on a thirty-day leave.

Captain H. C. Adkins has served at various stations, but is now located at Kelly Field, San Antonio, Texas.

Springfield, Missouri, was the last address given for Captain Russell L. Arbuckle, who has been serving as a dermatologist at a station hospital.

Lieutenant R. Lee Boling is a flight surgeon at Kelly Field, San Antonio, Texas.

Major Norman R. Booher is chief of the Medical Division, and commanding officer of the Station Hospital at Fort Benjamin Harrison.

Lieutenant John Hancock is stationed at Lamesa, Texas.

Lieutenant Nicholas W. Hatfield is stationed at the general hospital at Brigham, Utah.

The following letter has been received from Lieutenant James B. Warriner, former Indianapolis physician:

> "It has been a great pleasure to read the late issues of the state journal in the excellent medical library of Queen's Hospital in Honolulu. However, I believe that I would prefer to have my own copies, so please redirect my subscription to the above A. P. O. address.
>
> "I would like very much to see the familiar sights again, but for now I'll have to be content with sugar cane and pineapple."

We were pleased to hear from Doctor Warriner, for we had recently been unable to send THE JOURNAL to him because of lack of proper address. If our members will keep us informed of changes in address we will make every effort to get THE JOURNAL to them.

Lieutenant Archie E. Brown was assigned to the Flight Surgeon's Office at Baer Field, Fort Wayne.

The last report received concerning Captain Jacob E. Gillespie was that he is a staff surgeon in the Army Air Corps at Miami Beach, Florida.

Captain Edmund B. Haggard, who formerly was at San Raefael, California, is serving with a base hospital, and his address is A.P.O. 3325, care Postmaster, New York City.

Colonel Franklin T. Hallam is doing administrative and technical supervision work somewhere overseas.

Lieutenant Commander Everett L. Hays is in the medical service of a U. S. Naval operating base in Cuba.

Lieutenant Commander Russell S. Henry is stationed at the U. S. Naval Hospital at Great Lakes, Illinois.

We are informed that Lieutenant Colonel Robert D. Howell is the commanding officer of a medical battalion at Camp Carrabelle, Florida.

Information has reached us to the effect that Lieutenant Commander L. B. Hurt is serving at the Naval base at Peru, Indiana.

Lieutenant Commander Maurice V. Kahler is stationed at the Reserve Aviation Base at Peru.

Captain Sidney A. Kauffman, who has been on foreign duty about ten months, can be reached through A.P.O. 505, care Postmaster, New York City.

Lieutenant William M. Kendrick is connected with the training department of the Medical Field Service School at Carlisle Barracks, Pennsylvania.

"Send your state journals so we can hear of others, what they are doing, and where they are," is the request of Captain C. B. Ladine, whose address is A.P.O. 860, care Postmaster, New York City.

The last report we have concerning Major Chester K. Lamber was that he was with a general hospital at Fort Lewis, Washington, but that he was expecting orders for his mission on foreign soil.

Major Ralph U. Leser, whose address is given as A.P.O. 827, care Postmaster, New Orleans, is a regimental surgeon with a signal aircraft warning regiment.

Serving as a flight surgeon, Captain Ray D. Miller is now stationed at the Army air base at Pueblo, Colorado.

In a communication received from Captain B. D. Rosenak, who is chief of the general medical section of a station hospital, he gave his address as A.P.O. 612, care Postmaster, New York City.

"Supplies" is the big thing in the mind of Lieutenant Harry S. Rabb, who is serving somewhere in England. Supplies must not be a catch-as-catch-can matter; are we doing our part in helping to supply our men on the battlefront with the necessary material?

Lieutenant Sydney S. Norwick is sanitary inspector at Fort Bragg, North Carolina. He was formerly stationed at Fort Knox, Kentucky.

We have learned that Lieutenant Myron H. Nourse is a ward medical officer in the Department of Urology at the United States Naval Hospital, at Philadelphia, Pennsylvania.

Acting chief of the surgical service at the hospital at Camp Forrest, Tennessee, is the assignment of Lieutenant John F. Parker.

Captain George T. Paulissen is serving as anesthetist at the Hallovan General Hospital at Willowbrook, New York.

Lieutenant Joseph B. Quigley is in charge of a dispensary at the station hospital at Santa Ana, California. He is also teaching first aid, medical hygiene, and personal hygiene, with emphasis on desert, tropical and Arctic warfare.

Lieutenant Jack Reiss is stationed at Fort Bragg, North Carolina.

Lieutenant Thomas W. Reul is on active duty with the South Pacific Fleet. He can be reached through the Fleet Postoffice, San Francisco, California.

Making medical surveys in defense plants over the state of Mississippi is the present assignment of Captain Wayne L. Ritter, who is stationed at Jackson, Mississippi. He formerly served at Bethesda, Maryland.

Lieutenant Commander Thomas P. Rogers was appointed officer-in-charge of the Neuropsychiatric Unit at the Great Lakes Naval Training Station, at Great Lakes, Illinois, and then was transferred to a similar position at the United States Navy Hospital at Parris Island, South Carolina.

Lieutenant Commander Byron K. Rust is now serving as commanding officer for a one-thousand-bed convalescent hospital somewhere in the South Pacific area. He can be reached through the Fleet Postoffice at San Francisco, California.

Commanding officer of a station dispensary and base flight surgeon are the duties assigned to Major William A. Sandy, who is stationed in the Hawaiian Islands. Address his mail care A.P.O. 883, Postmaster, New York City.

Captain Ivan Winfield Scott is in charge of a general medical ward in a station hospital in India.

The following is an abstract from a letter received from Lieutenant Colonel David H. Sluss, who is commanding officer of a station hospital somewhere in the Middle East:

> "In this far-distant and foreign land just any word in English and from home is most welcome. We appreciate particularly current journals and periodicals which might keep us up to date on developments, both in medical and surgical practice and in the local situation in general."

Doctor Sluss can be reached through A.P.O. 523, care Postmaster, New York City.

Lieutenant Commander E. Rogers Smith is a ward officer in the Neuropsychiatric Department at the United States Naval Hospital at Mare Island Navy Yard, California.

Chief of the Section of Urology is the assignment of Lieutenant Colonel Roy Lee Smith, who is now stationed at the Fitzsimmons General Hospital, Denver, Colorado.

Major Alan L. Sparks is doing eye, ear, nose and throat work at Billings General Hospital at Fort Benjamin Harrison, Indiana.

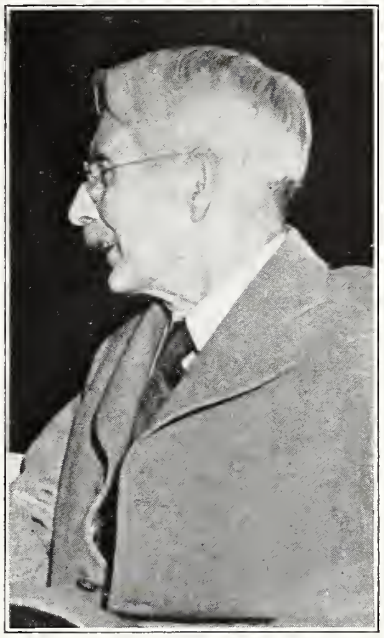
We are informed that Lieutenant Commander Walter Stoeffler is taking a six-months' course in epidemiology at the National Naval Medical Center at Bethesda, Maryland.

"I have been receiving THE JOURNAL and appreciate it very much; one of the big reasons is because it is from Indiana. I'm sure that we all enjoy hearing from home as often as possible," is a quotation from a letter received from Lieutenant David F. Stone, at the station hospital at Fort Jackson, South Carolina.

Lieutenant Jose A. Torrella is now serving as ward surgeon at Camp Atterbury, Indiana.

Captain Irvin W. Wilkens is located at Truax Field, Madison, Wisconsin.

Deaths



Dr. Barnhill

John F. Barnhill, M.D., widely-known former Indianapolis physician and author, died at his home at Miami Beach, Florida, on March tenth.

Doctor Barnhill was born at Flora, Indiana, on January 2, 1865, and was seventy-eight years old at the time of his death. He received his premedical education at the Westfield public schools and at the Union High School, and was a graduate of the Central College of Physicians and Surgeons, Indianapolis, in 1888. He specialized in surgery of the head and neck and did postgraduate work at the New York Eye and Ear Infirmary, and the New York Polyclinic; the Central London Ear, Nose and Throat Hospital; the University of Vienna; and the University of Berlin. He also studied in Paris. In 1929 he received an honorary Doctor of Laws degree from Indiana University.

He took a leading part in the negotiations which led to the establishment of the School of Medicine at Indiana University in 1907 and 1908, and was professor emeritus of surgery of the head at the Indiana University School of Medicine. He had also been connected with the University of Southern California and Johns Hopkins University.

Doctor Barnhill was associated with the Indiana University School of Medicine during most of his career, and one of his greatest achievements was the establishment of his course in anatomy of the head and neck. His accomplishments were many, and he was the author of a number of books: "Not Speaking of Operations," a textbook on the ear, nose and throat; co-author of "Modern Otology," published in 1907; "Diseases of the Ear, Nose and Throat," in 1927; "Surgery Anatomy of the Head and Neck," in 1937; "Hatching the American Eagle," an historical novel of the American Revolution, which was also published in 1937; and a second edition of "Surgical Anatomy of the Head and Neck," in 1940.

In 1937 Doctor Barnhill was elected president of the American Laryngological Association, one of the oldest organizations of its kind in the world. He was a member of the American Board of Otolaryngology; The American Academy of Ophthalmology and Otolaryngology; the American Laryngological Association; the American Laryngological, Rhinological and Otological Society; the American Otological Society, Inc.; and was a Fellow of the American College of Surgeons.

Sylvester Robert Best, M.D., of Gary, died on February fourteenth. He was seventy years of age. He graduated from the Ohio Medical University, Columbus, in 1898. Doctor Best specialized in industrial surgery. He was a member of the Lake County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Edward F. W. Crawford, M.D., of LaPorte, died February fourth, at the age of seventy-three. He was a graduate of the Wayne University College of Medicine, Detroit, in 1894. He was especially interested in gynecology and had taken postgraduate training in Europe. He was a member of the LaPorte County Medical Society, the Indiana State Medical Association, and the American Medical Association.

William H. Conner, M.D., of Fort Wayne, died on February nineteenth. He was seventy-nine years of age. He graduated from the Howard University College of Medicine, Washington, D.C., in 1894.

* * *

James B. Young, M.D., of Indianapolis, died February seventh, at the age of sixty-four. He was a graduate of the Medical College of Indiana, Indianapolis, in 1901. Doctor Young limited his practice to Internal Medicine. During World War I he served as a captain in the Army Medical Corps and was stationed at Camp Taylor, Kentucky. Dr. Young was a member of the Indianapolis (Marion County) Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

WHAT WENT ON DURING WORLD WAR I

(Items from THE JOURNAL of April, 1918)

In the scientific section Dr. Joseph D. Heitger, Bedford, wrote on some of the newer hearing tests; Dr. John W. Iddings, then of Lowell but now of Crown Point, discussed the tonsil and adenoid operation; while Dr. William H. Foreman, Indianapolis, presented an article on chronic constipation.

* * *

Editorially, various subjects were considered, botulism again came in for a rehearing; the Volunteer Medical Service Corps was discussed, as was false patriotism and some of the evils of contract practice.

* * *

Editor Bulson more than intimated that county societies that did not pay the dues of their service members were slackers.

* * *

He also took a rap at the city of Milwaukee, it being evident that he did not like the result of the city election held there, declaring that a pro-German element had prevailed and that when "our boys" returned from their overseas tasks they might well do a bit of "cleaning up" in that city.

* * *

A special session of the legislature was imminent, and the editor called upon the legislative committee of the association to be on the alert, as it was evident that some anti-medicine bills were being considered.

* * *

Then, as now, there was considerable discussion of civilian medical care; several communities already had asked for doctors to be assigned them.

* * *

Some of the members of the Medical Corps were complaining that they did not have enough medical work; that too much of their time was taken up in drills and whatnot. We recall that one Lake County doctor, assigned to Fort Riley, chose equitation for his drill course, thinking that would be about the best bet. But after several sessions of such drill, after having ridden down the sides of steep hills, et cetera, he was not at all certain that he had made a wise choice. We recall that he stated for some weeks he chose to stand rather than sit.

* * *

The editor loudly complained about the large list of delinquents in the matter of state dues, saying that there was no excuse for such things. He also averred that some county secretaries were slow in making their reports of dues collections.

* * *

Chicago had been chosen as the meeting place of the American Medical Association. Clinics were to be conducted in all the larger hospitals, the clinicians to be chosen from all over the country, rather than limited to the city of Chicago.

"Lagrippe" had become epidemic in many sections of the nation, one noticeable feature being that several wartime plants had their production sharply curtailed because of illness of employes as a result of this infection.

* * *

It was reported that a few physicians had been released from military services because of pro-German sympathies.

* * *

The purchase of alcohol on the part of physicians continued to be a bone of contention, chiefly due to the fact that insurance and bonding companies were bombarding members of the profession with letters to the effect that no physician could purchase alcohol without first supplying a bond—fee five dollars.

* * *

From the *Fort Wayne Daily News*, February 9, 1918:

"The examination of the safety deposit box of a local physician, who died recently, revealed the presence of more than $100,000.00 in cash and high class securities. From which it is allowable to infer that not all of the compensations of the healing art are incident to the solemn joy of relieving pain."

* * *

Dr. Ernest C. Reyer, Indianapolis, had died following an injury received in a fall. For many years Doctor Reyer had been a member of the teaching staff of the Indiana University School of Medicine.

* * *

Among Indiana physicians who recently had been commissioned as officers in the Army Medical Corps were: A. A. Watts, Gary; G. D. Larrison, Brooks; E. E. Johnson, Star City; S. D. Clayton, Maxwell; M. B. Catlett, Fort Wayne; E. K. Newton, Whiting; T. P. Govan, Richmond; F. N. Williams, Tell City; W. W. Ross, Laporte; E. E. Schreifer, Tell City; Chas. E. Woodcock, Franklin; E. L. Titus, Indianapolis; A. V. Hines, Auburn; Miles F. Porter, Jr., Fort Wayne, and B. W. Rhamy, Fort Wayne.

* * *

Dr. R. O. Ostrowski, Hammond, had been named as the head of the Third Liberty Loan Drive among the foreign-born population of Hammond, this appointment coming from the Chicago headquarters.

* * *

The total number of nurses enrolled in the American Red Cross as of March tenth was 18,344, of whom ten thousand had enrolled during the past year.

* * *

J. Rilus Eastman, president of the Indiana State Medical Association, had named a committee to organize the Indiana Volunteer Medical Service Corps. Drs. Frank B. Wynn and William Niles Wishard, Sr., were heading the committee.

News Notes

Dr. J. R. Albrecht, formerly of Mayview, Pennsylvania, has moved to Washington, where he will be affiliated with the Washington Clinic.

Dr. H. J. Norton's friends will be interested to know that he has opened a practice at Clearwater, Florida. Dr. Norton was formerly located at Columbus.

Carroll County reports an extensive immunization program, 4,400 diphtheria shots, 2,850 smallpox vaccinations and 3,241 Schick tests having been given since 1932, 1,018 persons having been immunized during 1942.

Kenneth E. Markuson, M.D., chairman of the Industrial Health Committee of the Michigan State Medical Society, extends an invitation to all Indiana members to attend Michigan's Post-Graduate Industrial Medical and Surgical Conference, to be held in Detroit on April eighth.

Announcement has been made of the appointment of Dr. Herman M. Baker, of Evansville, to the American Red Cross Medical and Health Advisory Committee. This committee serves in an advisory capacity on all phases of Red Cross activities in the field of public health. Dr. Baker is a past chairman of the Evansville Red Cross chapter and is a member of the Indiana State Board of Health.

Harold M. Camp., M.D., secretary of the Illinois State Medical Society, reports that the annual meeting of the Illinois State Medical Society will be held at the Palmer House, in Chicago, May 18, 19 and 20, and that an invitation is extended to Indiana physicians to attend this meeting. Inasmuch as there will not be many medical meetings this year, Illinois is really making elaborate plans for this meeting and will have a program of interest to all members of the medical profession.

A joint meeting of the Indiana Chapter of the American College of Chest Physicians and the Anti-Tuberculosis Committee of the Indiana State Medical Association was held at Indianapolis on March 21, 1943. Dr. M. G. Buckles, of Louisville, Kentucky, discussed "Bronchoscopy"; Dr. B. L. Brock, superintendent of the Waverly Hills Sanatorium, Louisville, Kentucky, spoke on "The Social and Economic Relationships to Tuberculosis"; and Dr. E. W. Custer, superintendent of the Healthwin Hospital, South Bend, talked on "Tuberculous Meningitis as a Complication of Thoracic Surgery."

Dr. Violet M. Crabbe and Gerald Forbes, of Wolcott, were married at Wabash on January twenty-eighth.

Dr. F. B. Kantzer, former Quaker City, Ohio, physician, has moved to Garrett, where he will engage in practice.

Major James M. Kirtley, former Crawfordsville physician, and Miss Leolia Black, also of Crawfordsville, were married on February fourteenth at Camp Gordon, Georgia, where Major Kirtley is serving on the medical staff. They will reside in Augusta, Georgia.

Dr. Everett A. King, of Hardinsburg, Kentucky, has been appointed as director of the Evansville Health Department.

Dr. Forrest Riley LaFollette, of New Salisbury, and Miss Jean Tillotson, of Franklin, were married at the First Presbyterian Church in Franklin on January thirtieth. They will reside in Indianapolis, where Doctor LaFollette is connected with the Indiana University Hospital.

Dr. Warren S. Tucker, of Indianapolis, and Dr. Mary Alice Craig, of Indianapolis, were married in the chapel of the First Presbyterian Church, at Indianapolis, on February twenty-first. Dr. and Mrs. Tucker are both graduates of the Indiana University School of Medicine.

From now on physicians will be able to get batteries for their diagnostic equipment, such as otoscopes, ophthalmoscopes and other electrical illuminated diagnostic instruments, according to a letter received from Robert P. Fischelis, chief of the Medical and Health Supplies Section, of the War Production Board. The batteries will be made available through surgical supply houses.

Dr. M. A. Austin, secretary of the Madison County Medical Society, reports that upon being given an honorary membership in the Madison County Medical Society, Dr. J. J. Gibson, of Alexandria, Indiana, replied as follows: "In response to your inquiry, I was born on February 3, 1865, and so I will tomorrow be seventy-eight years old. On June first of this year I will have practiced medicine fifty years. It is not very long, when looking backwards, but it is quite difficult to look ahead. I appreciate your inquiry, but have felt that as long as I am able to practice, even though I have to slow down, *I should pay my dues.*"

Announcement has been made of a sixty-three thousand dollar memorial gift to the Parkview Memorial Hospital at Fort Wayne, by the late George Wesley Longsworth and his wife, Emma Dennis Longsworth, who is still a resident of Fort Wayne. The subscription by the Longsworths will be used for the Children's Department and will include a section embracing an entire wing of the third floor, to be known as the "George Wesley and Emma Dennis Longsworth Department of Pediatrics."

The following is quoted from the *Greensburg Times* of February nineteenth:

"MET HITLER AND STALIN

"Dr. P. C. Bentle is probably the only Decatur County person who ever met Adolph Hitler and Joseph Stalin in person. The local physician met the Nazi Feuhrer and the Russian Premier while on a four-months tour of European clinics with a group of American medicos in 1938. Doctor Bentle said he had his own personal opinion of Herr Schickelgruber at the time, and he hasn't changed it. He was favorably impressed with Stalin, as were others in the group."

WAR CONFERENCE

Medical, surgical and industrial hygiene experts have agreed to pool their knowledge regarding the many new and complex problems of today's wartime production. For this purpose The American Association of Industrial Physicians and Surgeons, The American Industrial Hygiene Association, and The National Conference of Governmental Hygienists are combining their annual meetings in a four-day War Conference to be held at Rochester, New York, on May 24 inclusive of 27, 1943.

Physicians and surgeons, hygienists, engineers, nurses, and executives—all who are interested in the problems of industrial health and their solution—are invited to attend. No registration fee is required.

AMERICAN COLLEGE OF CHEST PHYSICIANS CANCELS 1943 MEETING

At a meeting held in Chicago on February fourteenth, a resolution was adopted canceling the 1943 annual meeting of the American College of Chest Physicians, because of the action taken by the American Medical Association concerning its annual meeting. It was, however, recommended by the Board of Regents that wherever feasible, state and district chapters of the College arrange to meet jointly with their state and district medical societies and assist in preparing scientific programs concerning the specialty of diseases of the chest. Dr. James H. Stygall, of Indianapolis, is the regent of the College for Indiana, and Dr. M. H. Draper, of Fort Wayne, is the president of the Indiana Chapter of the College.

INTERNATIONAL COLLEGE OF SURGEONS TO MEET IN JUNE

The Fourth International Assembly of the International College of Surgeons will be held on June 14, 15 and 16 at the Waldorf Astoria Hotel in New York City. Representatives of the United Nations will present outstanding examples of the progress being made in war surgery and rehabilitation under battle conditions by their respective countries.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY EXAMINATIONS

Candidates for the general oral and pathological examinations (Part II) should make written application to the secretaries' office of the American Board of Obstetrics and Gynecology, Incorporated, not later than April 15, 1943. These examinations will be held May 20 inclusive 25, 1943, at the Hotel Schenley in Pittsburgh. Address applications to Dr. Paul Titus, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

INDIANA UNIVERSITY NEWS NOTES

Preparations to meet emergency medical needs arising from the concentration of men and women in war industries in Indiana was the purpose of the Indiana Industrial Health Conference held February 25 and 26 at the Indiana University Medical Center in Indianapolis. It preceded a three-weeks' course to train physicians in the fundamental requirements in industrial medicine, in order that men of military age now doing that type of work may be released for the armed services.

The Indiana conference and the three-weeks' training program are the first of their kind to be held in the country and are serving as a basis for similar instructional programs in other states.

This conference, specializing in a field which is becoming increasingly important due to health hazards accompanying war industrial expansion, had many nationally-known speakers in the industrial medical field on the program, including: Drs. Clarence D. Selby, Detroit, medical director, General Motors Corporation; Carl M. Peterson, Chicago, secretary of the Council on Industrial Health of the American Medical Association; Edward C. Holmblad, Chicago, managing director, American Association of Industrial Physicians and Surgeons; Mr. A. T. Court, Detroit, Labor Economics Section, General Motors Corporation; Mr. J. J. Bloomfield, Bethesda, Maryland, sanitary engineer, United States Public Health Service, and others.

Fifty-two student nurses at the Indiana University Training School for Nurses have completed their preliminary course of study and have received their caps. The students entered the training school last September and were members of the largest class in the twenty-eight-year history of

the school. They will help meet the need for student nurses to replace graduate nurses called to the armed forces. They will receive the graduate nurse degree in September of 1945.

Those completing their preliminary training are: Dorotha Alexander, Franklin; Lois Barnet, Muncie; Vera Beehler, Bremen; Margaret Boren, Princeton; Anna Rose Brink, Evansville; Donna Britton, Ladoga; Alice Bryan, Gaston; Marguerite Butts, Clinton; Margaret Colglazier, Salem; Doris Conner, Anderson; Kathryn Costelow, Indianapolis; Doris Coughlen, Indianapolis; Ruth Danner, Indianapolis; Dorothy Dennis, Beech Grove; Mary Franklin, Spencer; Ruth Gottschall, Boswell; Lois Guyant, Almond, Wisconsin; Joan Harris, Richmond; Mary Ann Hensley, Bloomington; Mary Ellen Hummel, Kokomo; Pauline Ish, Waterloo; Arvilla Johnson, LaPorte; Betty Kestle, Monticello; Mary Lou Leffler, Shelbyville; Marjorie Lennart, Fort Wayne; Ruth Leonard, Elkhart; Patricia Liehr, Indianapolis; Anne Lybrook, Galveston; Jane McElhinney, Bloomington; Athalin Menefee, Vincennes; Eileen Morey, Martinsville; Joan Murray, Logansport; Marilyn Meyer, Indianapolis; Betty Noffke, Indianapolis; Betty Nusbaum, Cass; Mary E. O'Brien, Indianapolis; Willette Penn, Kokomo; Mary Alice Pesch, Plymouth; Selena Peterson, Rochester; Betty Prentice, Hall; Louise Reeve, Indianapolis; Rita Reynolds, Indianapolis; Audrey Ryan, Brownsville; Elizabeth Sexton, Rushville; Victoria Ster, Beech Grove; Letha Stuart, Columbus; Betty Tharp, Fountain City; Dorothy Turley, Fowler; Mary Lou VanNuys, Thorntown; Frances Weekly, Cortland; Ida Yeager, Terre Haute, and Kathleen Yount, Darlington.

The following forty-one Hoosier girls have been admitted to the spring class of the Indiana University Training School for Nurses: Margaret Antrim, Indianapolis; Helen Baker, Elnora; Jane Baker, Ellettsville; Marcia Barnum, LaPorte; Mary Gregg Bruner, Indianapolis; Eunice Brown, Lebanon; Norma Joan Clusserath, Hammond; Dorothy Davison, Bluffton; Dorothy Jane Denniston, Bedford; Charlotte Drummond, Brownsburg; June Eckman, Ligonier; Esther Fulk, Spencer; Jean Henderson, Holton; Patricia Ann Jones, Indianapolis; Dorothy Kaelin, Indianapolis; Irene Kasle, Indianapolis; Bette Kern, Bedford; Marjorie Knable, New Albany; Ethel Kocher, Anderson; Sarah Ann Land, Richmond; Virginia Lewis, Franklin; Joe Ann Maddux, Frankfort; Patricia Ann McConnell, Decatur; Mary McFarland, Vincennes; Phyllis Miller, Anderson; Reah Miller, Ladoga; Ruth Missal, Michigan City; Dorothy Moore, Monticello; Theresa Neptune, Fort Wayne; Virginia Newhouse, Indianapolis; Judy Ann Popper, Indianapolis; Sophie Reisman, South Bend; Doris Reisner, Indianapolis; Marjorie Sandefur, Evansville; Antoinette Smoljan, East Chicago; Marian Stewart, Indianapolis; Jean Stewart, Ladoga; Lois Jean Warden, Russiaville; Dorothy Wells, Vevay; Mary Helen Whitaker, Indianapolis, and Joan Zeitler, South Bend.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

December 20, 1942

Roll call showed the following present: C. A. Nafe, M.D., chairman; M. A. Austin, M.D.; C. H. McCaskey, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: H. S. Leonard, M.D., chairman, Committee on Civilian Defense; N. M. Beatty, M.D., J. W. Wright, M.D., co-chairmen; and John Hewitt, M.D., member, Legislative Committee.

The statements of receipts and expenditures for October and November for the association committees, and for August through November for THE JOURNAL, were approved.

Membership report

Number of members Dec. 19, 1942	3253*
Number of members Dec. 19, 1941	3221
Gain over last year	32
Number of members Dec. 31, 1941	3228

* This figure includes 110 honorary members and 208 men in service who received membership gratis.

Refunds totaling $1,349.17 have been made to 256 members who are in service.

Treasurer's Office

Audit of the books. Annual audit of the books was approved upon the motion of Dr. Romberger, seconded by Dr. Nafe.

Sale of Beachton Court property. The committee authorized the sale of the certificate held by the association for forty units of this stock upon the basis of $44.39 per unit.

Purchase of war bonds. Upon the motion of Dr. Romberger, seconded by Dr. Weyerbacher, the committee approved the purchase by the association of up to $6,000.00 in war bonds.

1942 Annual Session at French Lick

Letter received from Mrs. Louis Schenck, secretary, Gary Deanery Council, Fort Wayne Diocese of The National Council of Catholic Women, approving the action taken by the House of Delegates of the state association against birth control and planned parenthood through the use of contraceptives. The letter states:

"It is refreshing to note in this day and age that

members of the Indiana State Medical Association take a stand that is a credit to themselves, and an assurance to the people whom they serve, that their professional ethics are still based upon the moral law of God."

1943 Annual Session at Indianapolis

Dates set—Tuesday, Wednesday and Thursday, September 28, 29 and 30, 1943.

The committee approved having the convention at the Claypool Hotel, with technical exhibit in the Riley Room, and meetings on the ninth floor.

The Executive Committee approved having a technical exhibit at the 1943 meeting.

The Scientific Work Committee is to be invited to meet with the Executive Committee at its next meeting.

The committee discussed the feasibility of having general meetings and no section meetings, and also of doing away completely with the scientific program on the last morning of the session, merely having a House of Delegates meeting on Thursday morning, the last day of the session.

Legislative, Legal and Social Security Matters

National

Report by Sir William Henry Beveridge, advocating complete social insurance in England, and a review of an article in *Fortune* giving a blueprint of postwar planning, brought to the attention of the committee.

National Physicians' Committee.

a. Letter received from the National Physicians' Committee asking that officials of the Indiana State Medical Association send copies of bulletins to senators and congressmen. The committee felt that any distribution of these bulletins should be made by members of the National Physicians' Committee rather than have them come from any officer of the Indiana State Medical Association, as the National Physicians' Committee has no official connection with the Indiana State Medical Association, or, it is understood, with the American Medical Association.

b. Letter received from the secretary of the Randolph County Medical Society asking what connection the state medical association has with the National Physicians' Committee. The Executive Committee instructed the secretary to send the secretary of the Randolph County Medical Society a copy of the letter written to John M. Pratt, executive secretary of the National Physicians' Committee, outlining the position of the Indiana State Medical Association in regard to the National Physicians' Committee.

Group Health case. A.M.A.—District of Columbia Group Health case heard before the Supreme Court. Decision may be expected within the next six months.

Proposal for full-time Washington representative of A.M.A. National Conference on Medical Service to be held at Chicago, February 14, will present a recommendation to the conference that a full-time office should be maintained by the medical profession in Washington.

A.M.A. Legislative Bulletin No. 22 brought to the attention of the committee.

Local

Report made by Dr. Norman Beatty and Dr. William Wright.

Dr. John Hewitt, former senator, discussed possible legislation before the committee.

Meeting of Legislative Committee to be held preceding the Secretaries' Conference on January 24.

Bills under consideration:

a. House of Delegates, 1942 session, passed resolution calling for the introduction to the state legislature of an immunization bill this coming session of the legislature; type of bill to be introduced to be discussed at Council meeting, January 10.

b. Recommendation of Industrial Health Committee in regard to amending the Workmen's Compensation Law to permit the employment of the physically handicapped. The committee felt that this should be brought to the attention of the Council at the midwinter meeting.

c. *Group hospitalization bill.* It is understood that such a bill is being prepared for introduction by the Hospital Association.

d. *Barbiturate bill.* Suggestion that the barbiturate bill be presented at the next session of the legislature brought to the attention of the committee. The suggestion comes from J. W. Holloway, Jr., director of the Bureau of Legal Medicine and Legislation of the American Medical Association. It was thought that this should be discussed by the Council.

e. *Trachoma legislation.* Report made to the Executive Committee that Dr. C. W. Rutherford, State Supervising Ophthalmologist, State Department of Public Welfare, had informed the Legislative Committee that a bill in regard to the prevention and control of trachoma would be presented at the next session of the legislature. It was thought that this matter should be presented to the Council at the midwinter meeting.

Organization Matters

Indiana Inter-Professional Health Council. Dr. F. S. Crockett, of Lafayette, and Dr. L. H. Allen, of Bedford, were reappointed to membership on that council. In addition to Dr. Crockett and Dr. Allen, the ex-officio members who will serve upon the Council as representatives of the Indiana State Medical Association are: Dr. McCaskey, president; Dr. Romberger, chairman of the Council; Dr. N. M. Beatty and Dr. J. William Wright, co-chairmen of the Legislative Committee.

Clay County Medical Society meeting notice. The attention of the Executive Committee was called to the letter mailed to the members of the Clay County Medical Society by the secretary of that

society. This letter was printed in THE JOURNAL of the state medical association.

State Board of Health

Pre-military examinations for 17- and 18-year-old school boys. The Executive Committee feels that the method used in giving these examinations is entirely a local matter, and that detailed arrangements as to the cost of such examinations should be made by the local medical societies and the local school authorities. It is the feeling of the Executive Committee that the Army, in making a request for these examinations, did not have sufficient information regarding the burden which would be placed upon the medical profession, if the examinations are properly done, when the profession is already swamped with its duties both in the armed service and on the home front.

Serological tests in state laboratory. Letters in regard to the state laboratory doing serological tests, and a letter in reply from the state health commissioner, brought to the attention of the committee. This entire matter was referred to the Council.

Report made to the committee that the State Board of Health is having difficulty in holding personnel, as so many men have entered the armed services and as the compensation for this type of service is higher in many other states than it is in Indiana.

Medical Economics

Farm Security Administration. Report on Farm Security Administration in Indiana forwarded to the American Medical Association. Attention of the committee called to the report upon the national situation, which was made by A. M. Simons of the Bureau of Medical Economics of the American Medical Association at the annual secretaries' conference of the A.M.A. (November 20-21) and printed in the December 19, 1942, issue of *The Journal of the A.M.A.*

The committee referred to a recent article that appeared in one of the local papers, quoting Dr. F. D. Mott, who is connected with the national organization of the Farm Security Administration, and suggested that the exact statement he made be obtained.

War Medicine

Report made in regard to procurement and assignment situation in Indiana for 1943. In this state emphasis will no longer be placed upon procuring physicians for the armed services. Emphasis will be upon the placement of physicians in those communities where there may be need of medical attention.

Fifth Corps Area Conference. Fifth Corps Area Procurement and Assignment Service conference to be held at Louisville, December 21 and 22.

Supply of physicians for war boom areas and civilian needs.

a. As this is the big problem to be undertaken by the Procurement and Assignment Service and the War Participation Committee of the Indiana State Medical Association in 1943, the Executive Committee recommends that any publicity and correspondence carried on in regard to dislocation of physicians be channeled through the headquarters' office of the state medical association. The committee felt that it was best that this be done in order to avoid a public misinterpretation in regard to:

1. Needs of Indiana communities for physicians;
2. Question of using émigré physicians in certain areas in Indiana;
3. Standard of medical care being received by Indiana civilian population.

The Executive Committee recommended that Dr. McCaskey appoint a committee to call upon Dr. Bird, chairman of Procurement and Assignment for Indiana, and discuss these matters with him.

b. Statement by Dr. Frank Lahey, chairman of Procurement and Assignment Service, asking physicians to volunteer for locations in war boom areas or in communities where medical services are needed, to be carried on the front page of the January JOURNAL of the Indiana State Medical Association.

c. *Licensing regulations.* The Executive Committee felt that this matter should be left entirely up to the State Board of Medical Registration and Examination. The committee reviewed the action of the House of Delegates in regard to full citizenship.

Program for industrial health meeting. Program for a two-day symposium on industrial medicine, as prepared by Dr. Louis W. Spolyar, chief of the Bureau of Industrial Hygiene of the State Board of Health, brought to the attention of and approved by the Executive Committee. Dates of this meeting, which is to be held in February, are to be set by Dr. Spolyar. Funds for holding the symposium, to the amount of $700.00, have been approved from Title Six of the United States Public Health Service.

Gas rationing.

a. *Special marking for physicians' cars.* Dr. Henry S. Leonard, chairman of the Civilian Defense Committee of the state medical association, presented the suggestion that some special marking be approved for use on physicians' cars. He presented a letter and emblem received from The Van Patten Pharmaceutical Company of Chicago. This organization will supply emblems for the windshield free of charge. The committee authorized the secretary to find out the standing of this company.

b. A representative of a pharmaceutical firm requested that the Indiana State Medical Association send his company a letter to enable its salesmen to get "a better gasoline rationing break." The committee felt that no letter should be sent to an individual company, but that any action taken along this line should be taken through the Indiana Pharmaceutical Association.

Mileage fees. The committee again discussed mileage fees and felt that this was a matter for each local county medical society to determine, and not a matter of concern of the Procurement and Assignment Service.

"Doctors at War" radio program. Announcement of a new radio series entitled, "Doctors at War," sponsored by the American Medical Association and the National Broadcasting Company, with collaboration of the Medical Department of the United States Army and the Bureau of Medicine and Surgery of the United States Navy, brought to the attention of the committee. Announcement of this program comes from Dr. W. W. Bauer, director of the Bureau of Health Education of the American Medical Association.

First issue of "The Service Bulletin" of the St. Joseph County Medical Society brought to the attention of the committee. The committee heartily approved the bulletin and recommended that congratulations be sent to Dr. R. W. Spenner, editorial chairman.

The Journal

Printing contract for 1943. The committee approved awarding The C. E. Pauley and Company the printing contract for 1943; details in regard to charges to be arranged by Mr. Hendricks.

Advertising rates. New advertising rates go into effect in January, 1943, for all advertisers. Only a few companies have not renewed their contracts under the new rates. The raise in rates was started a year ago and goes into effect completely on January first.

Advertising receipts. Advertising receipts for 1942 will be approximately the same as in 1941, but will not cover the increased printing costs for 1942. To date advertising receipts for 1942 exceed the budget estimate by $217.92, some recent gains having been made in advertising.

Convention reporting. The expenses for convention reporting exceeded the budget allowance due to the fact that fewer physicians had prepared manuscripts and extra expenses as a result of the meeting being held outside of Indianapolis.

There being no further business, the meeting was adjourned.

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FREEDOM from *Want* and *Fear*

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

February 5, 1943

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D.; K. R. Ruddell, M.D.; C. H. McCaskey, M.D., president; and T. A. Hendricks, executive secretary.

Newspaper release, "Indiana's Industrial Health Conference," approved for publication in Monday papers, February 15. Additional article is to be prepared on "Indiana's Emergency Educational Program in Industrial Health."

Suggestion made that the following subjects might be touched upon in releases, or by speakers sent out by the Bureau of Publicity:

Public Health in War Time.
Vitamins and Food Faddists.
The Doctor Goes to War.
Occupational Diseases.
Nutrition Courses.
Sulfonamides.
Blood Donation.
Cancer Control.
Heart.
Obesity.
Smallpox.
Responsibility of Medical Profession in Meeting Problems Incident to Depleted Personnel and Increased Population.
Housing Problems and Overcrowding in Military and Industrial Areas.
Woman's Auxiliary Activities.
Tuberculosis.
Scarlet Fever.
Diphtheria.
Measles.
Whooping Cough.
Vaccination.
Malaria.
Typhoid.
Rheumatic Fever and Heart Disease.
Alien Physicians.
Conservation of Vision.
Conservation of Hearing.
Hearing Aids.
Unnecessary Night Calls.
Plans to Meet Need of Medical Care—Public Must Aid.
Rehabilitation Program for Doctors After the War.

The Bureau approved the preparation of articles for The *Indianapolis News.*

Request received that speakers be supplied for the Fourth District Medical Society meeting to be held on May 19, 1943. Letter to be written asking how many speakers will be required and how long they are to speak.

The Bureau suggested that a speaker be placed upon the program for the Industrial Health Conference to discuss "The Rights of the Individual Practitioner in the Industrial Field."

(Continued on page xxi)

(Continued from page 234)

BUREAU OF PUBLICITY

February 19, 1943

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D.; C. H. McCaskey, M.D., president, and T. A. Hendricks, executive secretary.

Newspaper releases: (1) "Indiana's Industrial Health Conference," approved for publication in Monday papers, February 15; (2) "Indiana's Emergency Educational Program in Industrial Health," to be prepared for publication in Tuesday papers, February 23, 1943.

Detailed arrangements to be made for the series of articles which are to appear in The *Indianapolis News*. These articles are to be prepared in accordance with the plan adopted at the January 8 meeting of the Bureau.

The Bureau discussed further the preparation of several articles, giving the truth in regard to vitamins and food fads. One member of the Bureau was named to contact the physicians who are to prepare these articles.

Report on medical meeting:

Feb. 17, 1943—Miami, Wabash and Cass County Medical Societies, Peru. "Hypertension."

Letter received from Mrs. Frank Cregor, widow of Doctor Cregor, thanking the Bureau for the article which appeared in the February issue of THE JOURNAL in regard to Dr. Cregor's service to the state medical association. The Bureau suggested that this letter be published in THE JOURNAL.

COUNTY SOCIETIES

COUNTY MEDICAL SOCIETY OFFICERS

(Numerous reports have been published in earlier issues; these additional reports have been received since publication of these issues.)

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY
President, Robert Turner, Muncie
Vice-president, F. W. Dunn, Muncie
Secretary-treasurer, Bruce W. Stocking, Muncie

CARROLL COUNTY MEDICAL SOCIETY
President, Max Adams, Flora
Vice-president, E. H. Brubaker, Flora
Secretary-treasurer, C. L. Wise, Camden

LOCAL SOCIETY REPORTS

Clay County Medical Society members met at the Glenn Home, at Brazil, on February sixteenth, and the county trustees were their guests, this being their fifth annual meeting together. Nine members were in attendance at this meeting.

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Delaware-Blackford County Medical Society members held a meeting at the Ball Memorial Hospital, at Muncie, on February twenty-third. Dr. T. R. Hayes, of Muncie, was the speaker of the evening, his subject being "Carcinoma of the Prostate." Thirty members were in attendance.

* * *

Elkhart County Medical Society members held a meeting at Hotel Elkhart, Elkhart, on March fourth. Dr. J. H. Warvel, of Indianapolis, spoke on "Treatment of Diabetes in General Practice." Forty-five members were present at this meeting.

* * *

Greene County Medical Society members met at the Freeman Greene County Hospital, at Linton, on February eleventh, for a dinner meeting. Dr. George E. Moses, of Worthington, spoke on "Post-operative Thrombophlebitis and Embolism." Twelve members were present at the meeting.

* * *

Lake County Medical Society members held a meeting at the Mercy Hospital, at Gary, on February eleventh. Dr. A. M. Mitchell, of Terre Haute, was the guest speaker, his subject being "Some Ideas about Post-War Medicine for Doctors."

* * *

LaPorte County Medical Society members met at the Rumley Hotel, at Laporte, on February eighteenth. Dr. C. D. Brooks, of Detroit, Michigan, spoke on "Acute Cholecystitis." Twenty-five members were in attendance at this meeting.

* * *

Miami County Medical Society members held a meeting at the Dukes Memorial Hospital, at Peru, on February seventeenth. Dr. A. C. Corcoran, of Indianapolis, was the speaker of the evening. Eleven members were present at the meeting.

* * *

Randolph County Medical Society members met at the Randolph County Hospital, at Winchester, on February eighth. Dr. Ivan E. Brenner, of Winchester, spoke on "Electrocardiography." Eleven members were in attendance.

* * *

Rush County Medical Society members held their February meeting at the Lollis Hotel, at Rushville, on the eleventh. Dr. W. D. Inlow, of Shelbyville, discussed "Instruments." Eight members attended the meeting.

* * *

Tippecanoe County Medical Society members met at the Lincoln Lodge, at Lafayette, on February ninth. W. F. Crawford, D.D.S., dean of the Indiana University School of Dentistry, and Grant Van Huysen, D.D.S., also a member of the staff of the University School of Dentistry, were the speakers of the evening. Their topics were "Dentistry, Medicine and War" and "Differential Diagnosis of Gingivitis." Forty-eight members and guests were in attendance at this meeting.

WOMAN'S AUXILIARY to the Indiana State Medical Association

President—Mrs. Arnold H. Duemling, Fort Wayne
President-elect—Mrs. James W. Baxter, Jr., New Albany
Corresponding Secretary—Mrs. E. M. VanBuskirk, Fort Wayne
Treasurer—Mrs. C. E. Monk, Kendallville

A public relations meeting will be sponsored at 1:30 o'clock the afternoon of March 26 in the L. S. Ayres and Company auditorium, by the Woman's Auxiliary to the Indianapolis (Marion) County Medical Society. This is the second annual meeting of the organization, and any person who is interested is asked to attend.

Lieutenant Colonel F. C. Potter, Medical Corps, chief of the laboratory service at Billings General Hospital at Fort Benjamin Harrison, will be the speaker. His subject will be "Cancer From the Laboratory Viewpoint."

A Technicolor motion picture, entitled "The Vitamin B Complex" will be shown. This film will demonstrate the results of experimental work which has been done by Dr. T. D. Spies, Dr. W. B. Bean and Dr. W. F. Ashe in the field of vitamin deficiency, and the effect on bones, glands, skin and related handicaps in all ages.

Mrs. W. E. Tinney, who is chairman of the public relations committee, will have charge of the meeting. Others on her committee are Mesdames Matthew Winters, Byron K. Rust, Harold M. Trusler and Wayne Carson. Mrs. Frank M. Gastineau is president of the auxiliary.

The program will be followed by a tea, in charge of Mesdames Harry R. Kerr, B. E. Ellis, J. S. McBride, John Brayton and Russell Hippensteel.

The Allen County Medical Auxiliary planned an unusually interesting as well as timely topic for panel discussion at its last meeting, Tuesday evening, March 2, at 7:30 o'clock. The group were guests of the Methodist Hospital.

Miss Ethel McLane of the Family Service Bureau was invited to preside as discussion leader. The subject was "Clothes Line or Production Line for the Mothers of Children." Harold Stoner, director of United States Employment Service in Fort Wayne, presented the phase "Production Line Manpower Pressure and Requirements." Mrs. Helen Toy discussed "Clothes Line—The Family in Wartime." Mrs. Helen Palmer and Mrs. Richard M. Hartigan spoke on "Clothes Line Substitutes," their respective topics were "Foster Homes" and "Day Nursery Units." "Clothes Line Goes To School" was the subject presented by Miss Mabel Holland, primary supervisor in the Fort Wayne Schools, while the Rev. Robert Faust Sheaffer, pastor of Bethany Presbyterian Church, had as his topic "Changing the Clothes Line in Church." R. B. McClintock, director of recreation in the city of Fort

Wayne, presented the playground as a recreational center in his talk on "No Clothes Line—All Production."

Last month we mentioned some of the well-defined duties enumerated by our inspiring national auxiliary president, Mrs. Frank N. Haggard, that we must assume in our task of being worthy of the place we occupy as doctors' wives. Some of our very important duties in this task are individual in scope. Just you and I, alone, can possibly achieve their consummation. Many others call for the united effort of all who face this common task. Therefore, our need of this affiliation in our county, state and national auxiliaries.

Mrs. Arnold H. Duemling, state president of the Auxiliary to the Indiana Medical Association, has made a very fine composite picture of these tasks calling for unity of action. The composition of the picture is very clear and well balanced. The central point of interest is the president's message and the personnel of her state official family. This point of interest inspires confidence and reassurance that each individual is not functioning alone. The action and highlights of the picture are the activities calling for united effort, as interpreted by each of the chairmen.

Mrs. William E. Tinney, a past state president, is now chairman of Public Relations. This is an activity calling for the greatest discretion, and alert consciousness of the responsibility in this task of being worthy. Some activities necessitate our knowing the objectives of the medical profession and its wishes in the methods of approaching these objectives. We must be correctly informed and must use this information kindly and effectively. We must, backed by the association, keep health education coming from its only authentic source. Mrs. Tinney has recently touched up the action in her part in this state picture by requesting from each county president a very detailed summary of community, Civilian Defense and Red Cross work in which doctors' wives have been engaged during this last year.

Mrs. F. B. Wishard, another past state president, now chairman of Legislation, has presented, in her plan for legislative study, a very brilliant bit of action that affects the practice of medicine. Some of the worst measures are, of course, urged in the name of "emergency."

"*Hygeia*, The Health Magazine, under the careful scrutiny of the American Medical Association, maintains a high professional accuracy in its contributed articles, editorials and advertising policy," says Mrs. George Dillinger, national and state chairman for that publication. *Hygeia* is our means of leading in authentic health and education.

Miss Lucy Schuler contributes action to the picture through her presentation of our need for the *Bulletin*, the official national auxiliary magazine. It gives a digest of activities and messages of value to auxiliary members.

Mrs. William A. Wishard, Jr., chairman of State Press and Publicity, edits the news from our county organizations for the state journal.

Mrs. H. A. Ray, northern chairman, and Mrs. James W. Baxter, Jr., southern chairman of Organization, diffuse a feeling in this picture that our value in this united task of being worthy is in proportion to our increased membership.

In the background of this picture is the clear, mellow highlight that brings a definite realization of unity in the action. This soft glow comes from the history, the archives and exhibits that preserve the wealth of thought, work and accomplishment through the years.

Mrs. U. G. Poland, Mrs. E. M. Shanklin, and Mrs. M. B. VanCleave, respectively chairmen of these activities, have faithfully cared for and contributed much of this wealth through the years.

The program chairman and the Allen County president have taken something from each of these activities and highlights and tied them into topics that might form interesting subjects for individual auxiliary meetings.

The picture is framed in an eye-catching, easily used Victory pocket, or kit, indicative of Indiana's realization of the unity necessary in this task of *being worthy*.

ABSTRACT: A MAJOR MEDICAL VICTORY

In an editorial pointing out the safety of pooled human plasma, *The Journal of the American Medical Association* says in its March 20 issue that "The demonstration of the surpassing value of pooled human plasma in shock has been designated 'a major medical victory.'" *The Journal* points out that "From a careful analysis of extensive data, [William] Thalhimer concludes [in a recent article] that in pools of plasma or serum, agglutinins are reduced to such a low level 'that no danger can result to patients from the injection of even large doses from these pools.' Large amounts of pooled plasma are given safely without any preliminary tests for compatibility."

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WARTIME-PATIENT PHASES OF INDUSTRIAL OPHTHALMOLOGY

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It has been said, and not erroneously, that every minute of the day two workmen suffer eye injuries. I have endeavored to find statistics on the comparative increase of eye injuries during the past eighteen months since war production has been speeded up. These statistics are not available, but from my own experience I feel that there has undoubtedly been an increase in the number of industrial eye injuries. This increase is due to a number of factors. There have sprung up all over the country both small and large machine shops with improperly supervised safety features. Eye injuries cannot be completely eliminated; however, a great percentage of these can be reduced through proper education. This applies not only to the employee, but also to the employer. It is not possible to expect good safety results from the employee, regardless of the type of education given him, until after the management has demonstrated its own sincere interest by making the plant physically safe. The responsibility for this rests with the employer by providing proper guards, goggles, shields and other protective devices. This provision can also be improved by proper lighting. Workers are constantly subjected to conditions which momentarily, at least, cause them to disregard their safety, and often this momentary disregard leads to serious eye injuries. It is important that the employer has a continuous education process to insure the maximum amount of safety. Experience has shown that workers often do not evidence the maximum amount of interest in safety until they realize the company's genuine interest in their educational program. It is not possible, of course, to accomplish this education in a few days' time; it often requires weeks. I will not attempt to lay down a plan as to how this should be done, for this comes under the job of the safety engineer, the personnel manager, the plant doctor and the nurse. When a new employee is started on a job, if those who are responsible would spend a few hours with him before he is permitted to work and explain to him his own personal safety and how he can protect fellow workmen, I think that a number of these accidents could be diminished. It could be pointed out to him that an unsafe worker is not an efficient worker. As we all know, such workers slow up production and interfere with the efficiency of the plant in general.

The Pullman Company has a rigid rule that all employees must wear goggles in doing any kind of hazardous work that might injure their eyes. Employees object to this procedure and many excuses are given for not wearing the goggles. A part of this responsibility is held by the personnel or safety director because it is up to him to direct the employee as to the proper goggle to wear for the particular job. It is also a co-ordinated responsibility between the safety director and each employee to have regular inspection of all machines or tools that move, to see that they are in a safe condition. During these days when highly-tempered steel is used, particles of flying steel penetrating the eye are more frequent than when softer steel was used. Many eyes have been injured by using a chisel or a punch whose head has been pounded repeatedly, producing burrs of steel hanging down over the edge. These burrs break off easily and fly at high velocity. By merely replacing this rather inexpensive tool with a new one, it may save an eye.

This problem of eye accidents in industry is becoming an enormous one. The increase is due to lack of safety factors as previously stated. As a result of the Selective Service of age groups, a number of men that have already been trained for safety have been taken out of jobs and replaced by boys, as well as older men beyond the Selective Service Age, who have never before operated a high-speed machine or hand tools. In other instances women are serving. Because of the speeded-

up production there apparently has not been sufficient time to educate these new employees. If a little more time could be given this education program for new employees, I am sure eye injuries could be greatly reduced. My own experience has shown that the greater proportion of eye injuries have occurred to the new employees rather than to those who have been on their job for a number of years and are watching for their own personal safety. I believe that these facts are true with other bodily injuries as well as with eye injuries.

Dr. Louis Schwartz, of the United States Public Health Service, estimated that in 1932 three hundred thousand industrial eye accidents necessitated a layoff from work of one day or more each year. This estimate was for one of the depression years, and I believe we could safely say that at this time those accidents are at least tripled.

The larger plants which have supervised safety show the lower percentage of injuries per unit of employees. Small plants which have recently sprung up and have no particular safety campaign, and those plants that are in out-of-the-way places with old equipment and bad lighting, are the greatest offenders. Some of the modern plants have installed fluorescent lights, which I believe are hazardous. They are beautiful to behold, but damnable to work under. It is my feeling that each machine, whether it is a lathe, planer, drillpress or what, should have over it a sufficient amount of light, with a solid metal shade so placed as to prevent any of the light from getting into the employee's eyes. These lights should be so installed that they can be raised or lowered to illuminate the work thoroughly. It is also important that no portion of the worker's body cast a shadow on his work. You will observe that machines are often placed so that the employee faces windows or overhead lights, which situation after a time produces asthenopia which may lead to early fatigue and carelessness, as well as temporary impaired vision. Another important factor of safety is that each employee should have visual acuity, as well as fusion tests and muscle co-ordination taken, and if there is any impairment of those factors they should be corrected before he is permitted to work on hazardous machinery that requires accuracy. Such a man should be provided with shadow-proof glasses with his correction in them, and should be instructed that it is necessary to keep those lenses clean throughout his working hours. The same thing applies to older employees; their vision should be checked from time to time for accuracy and safety.

During the past few months I have observed that the major portion of foreign bodies in the cornea occurred from the use of an airhose, which has an air pressure upwards to one hundred pounds. This airhose is used to clean shavings, dust particles and other debris from their work. Often after a hole has been drilled in steel, this stream of air will be driven down in the hole to blow the shavings. At the same time the employee is looking into the hole to watch the progress of his work. These injuries could be cut to a minimum by a simple safety factor of turning the head to the side with the eyes closed while the airhose is being used. Also I have observed that the employee using the airhose is careless about the proximity of fellow workmen. I have not yet found where a foreign body has been driven into the inside of the eye by an airhose, but I can readily see how it could be possible.

The use of the emery wheel still accounts for many corneal foreign bodies. In a great number of the emery foreign-body cases I have found that the employee has not used goggles when the wheel was being used. They would often state that they were merely sharpening the point of a tool which required only a few seconds, and this not being a long operation they did not believe it necessary to use their goggles. Others would state that the company did not provide goggles at all, or only supplied a few, and that at the time they wanted to use the emery wheel they did not want to waste a few minutes in hunting for a pair of goggles. I made an effort to instruct all such individuals that they had better waste a few minutes hunting a pair of goggles than to spend hours in pain and a few days' disability, which aids tremendously in the total manpower hours lost in industry.

The big problem in first-aid treatment of eye injuries, as well as other injuries, is that of trying to prevent infection. Machines, tools, and raw materials used often are contaminated with oil, dirt or other bacteria-laden material. Many of these wounds may become infected if they do not receive prompt and proper first-aid treatment. Many become infected, however, even after receiving this first-aid treatment. Immediately upon receiving an eye injury workmen grab or rub their eye with soiled fingers. In the case of emery in the cornea there often is little or no pain until several hours afterwards, and in the case of small penetrating foreign bodies the injured does not realize that he has received an injury until later when pain occurs. In either case the incubation period for bacteria has been sufficiently long to be a potent source of infection. Such delays produce tremendous amounts of visual impairment. I would like to state here that some employers are guilty of rushing their injured employees back to work prematurely. This is done chiefly during safety campaigns in an effort to establish a low record of lost-time accidents. The injured worker may be an important cog in his department, and for that reason he is rushed back too soon. I feel that this process represents false economy.

In those plants which employ a nurse, a plant doctor, or both, the incidents of eye injuries as well as the percentage of permanent impairment have been definitely diminished. In most of

those plants the plant doctor's duties partially are to instruct in prevention.

Another thing that often is disastrous to eyes is the employee who prides himself on being able to remove a foreign body from a fellow employee's eye by using a soiled handkerchief, toothpick, horse hair, or whatever else might be handy that he has in his pocket. In such cases a tiny wound caused by a foreign particle may easily become infected because of the bungling of an amateur. Because there are in many plants this self-appointed "foreign body remover," the percentage of visual impairment from infection is high. During my experience I have seen two eyes that had to be removed because of bungling. One was in the case of a "shop oculist" penetrating the cornea with his pocket knife when the patient flinched from pain because no local anesthetic had been used. The other was an inexperienced nurse who shoved an apparently superficial corneal foreign body into the anterior chamber, and because the foreign body was no longer observable she felt that she had removed it.

In the case of non-penetrating foreign bodies the initial step consists of flushing the eye, and often this will remove the foreign body. This can be done with water, boric acid, or normal salt. Some plants permit the plant nurse to use an anesthetic to remove the foreign body from the cornea. I have maintained that if a foreign body is sufficiently fastened on a cornea that a local anesthetic is necessary, that case should not be handled by the nurse but by the plant doctor or an eye physician. If the nurse is unable to remove the foreign body by merely flushing the conjunctival sac, an antiseptic should be placed in the sac, the eye bandaged, and the patient sent to a doctor.

In the case of acids or alkalies it is highly important that the first aid consist of thorough and repeated flushing, with eversion of the lids, in order to remove any particles that may remain before the patient is sent to the physician. All penetrating wounds should be sent to the physician at once. When a penetrating foreign body is very small it is frequently not possible for the injured to determine whether or not there is anything in the eye. The same holds true for the plant nurse and often even for the plant physician, and it is a good rule to follow that in all questionable cases the eye should be x-rayed. If intra-ocular foreign bodies are not removed, the eye may eventually become totally blind.

I do not believe that in the present industry we are meeting as many chemical irritations and burns as were met prior to the present war. There has been practically a complete curtailment in the production of automobiles, household ware, mechanical appliances and the like where chemicals were used, apparently more extensively in nickel and chromium plating. There has also been a curtailment in the building trade which has eliminated many of the cement burns that we formerly saw. I am not able to discuss the prevalence of chemical burns in the war industry in other localities. The chemical burn that does the most damage is that of a classification of alkalies. Most individuals who receive chemical burns from either acid or alkali should immediately flush the eye with water even before going for first-aid treatment. Fortunately, this type of injury is usually not complicated by delay or bungling as occurs in the cases of corneal foreign bodies. Some plants supply eye fountains for irrigating eyes that have been exposed to these chemicals. A good emergency first-aid treatment that can be used in the plant, as well as at home, for such chemical burns is to have the patient lie down and have someone else irrigate the eye with water, normal salt, boric acid, or even milk from the lunch kit. Lift the lids from the globe and pour the liquid over the eye as the patient rotates the eye in every direction in an effort to irrigate any material that might adhere to the conjunctival surface of the lids. If no other way is possible, there can be no additional harm done by the patient immersing his head in water and opening his eyes under water.

In my experience I have had more difficulty with alkali burns than with acid burns. It is too lengthy to discuss the various treatments offered for these respective burns. I cannot overemphasize the necessity of thorough and copious flushing of these conjunctival sacs. For the alkali burns it has been stated that dilute acetic acid will at once neutralize caustic soda and will convert it into a harmless sodium acetate. Others feel that this is of no particular benefit and suggest a 1 per cent solution of zinc sulfate as a relief measure. One large plant expressed an opinion that with the use of a 1 per cent zinc sulfate there was only a very small loss of impairment of vision in their caustic eye burns, and in those cases they felt that the impairment of vision that did exist resulted from insufficient flushing with the zinc sulfate, or that the flushing was not done soon enough after the injury. This plant also claimed that the use of the zinc sulfate was superior to the dilute acetic acid because the former is less irritating and provides a complete reaction rather than, as they called it, an "equilibrium action." The caustics used in industry are chiefly alcohols, ammonia, caustic sodas, potash, and lime. The acids most commonly used are nitric, sulfuric, hydrochloric, carbolic, and carbonic. Proper first-aid treatment for the acids is the same as the alkalies. The eye should be immediately and thoroughly flushed with water. The saturated solution of bicarbonate of soda will often completely neutralize the acid. I have observed when the eye is first examined following a burn from an alkali that we cannot at that time estimate the ultimate damage of the eye, as we can with acid burns. Acid seems to do its work all at once, while there is a delayed destructive action from an alkali. I always look

upon an alkali burn with considerable gravity, more so than upon an acid burn. We all have our own favorite method of treating these various types of burns, but I do not believe this paper justifies my discussion of those. The treatment varies from day to day as the progress of the pathology either improves or gets worse. The eye must be treated according to that progress.

Actinic irritations, commonly known as flash burns, of the eye have increased during the present war production. This is, I believe, due to more than one factor. Many are attending welding schools, and the increased number of welders is evident. In their first instruction they are told that they shall wear proper masks or a welding glass to eliminate these actinic irritations. There are those who will wear them conscientiously, but will from time to time while welding lift their mask to observe the progress of their work, and thus become exposed to the injurious ultraviolet rays. Some individuals can take longer exposures than others without any symptoms or signs. There are other workmen who will be walking past while the welders are working and, instead of turning their heads away from these intense lights will turn towards them, thereby becoming exposed. In the case of electric arc welding these "flashed" eyes are increasing, not particularly among welders but among their assistants. The welders who wear masks and goggles are protected by welder's "green" glass. The symptoms of actinic irritations do not usually occur until several hours afterwards, usually after the victim has been in bed asleep. This is characterized by a pronounced irritation and a sensation that the eye is full of sand. Ordinarily there is no ultimate sequela unless the macular area of the retina has received damage, which in the beginning would be an edema of the macular area and later may result in destruction.

As a result of the haste in this war industry there has, without doubt, been a marked increase in the number of eye injuries. This has been brought about by the factors enumerated above. Education and the slogan that "haste makes waste" would be important steps in eliminating a high percentage of those that could be avoided.

ABSTRACT

PLANS ALREADY HAVE BEEN MADE TO CARE FOR BLINDED MEMBERS OF ARMED FORCES

Plans already have been made for the handling of members of the armed forces who are blinded in this war, *The Journal of the American Medical Association* points out in its April 10 issue. *The Journal* says:

"Among the casualties of war few merit more immediate consideration than that given to those who become sightless as a result of their participation in the national defense. In World War I, according to available figures, less than 250 Americans were blinded. Thus far the number of British soldiers who have become sightless, including the men from Great Britain and the colonies, is somewhat less than a few hundred. Planning bodies, therefore, estimate that the number of Americans in the armed forces who become totally blind will not exceed a few hundred. For the past six months representatives of the Surgeon Generals of the Army, the Navy, the Public Health Service, the administrator of the Veterans Administration, the Federal Board of Hospitalization and the ophthalmologic committee of the Division of Medical Sciences of the National Research Council have been engaged in a study of the problem. An elaborate program has been developed to rehabilitate socially and economically those who become sightless. Sufficient funds have been provided by the Congress to meet every possible need. The plans contemplate utilization of existing agencies which deal with the blind. However, public fund-raising campaigns are unnecessary since the over-all need is hardly sufficient to demand special expansion for this purpose in the services of unofficial agencies. In accordance with the executive order of the President, the social rehabilitation of the blind becomes a function of the Veterans Administration and is to be handled by the Division of Educational Rehabilitation and not the medical division. Through the cooperative effort now in process of development the rehabilitation will begin just as soon as the diagnosis is made and will continue from the time of reception of the invalid by the armed forces until the man can be discharged from the Veterans Administration physically, mentally and socially rehabilitated."

UTILIZING EVERY AVAILABLE MAN-HOUR OF MEDICAL PERSONNEL

An example of how every available man-hour of medical personnel is being utilized to meet the medical problems resulting from the war is contained in an announcement by the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, of the War Manpower Commission, on the utilization of overlapping internships, published in *The Journal of the American Medical Association* for March 27. The announcement says:

The directing board of the Procurement and Assignment Service has informed its state chairmen that consideration should be given to overlapping internships resulting from the nine months school year and has suggested that state chairmen should serve as a clearing house between hospitals with such overlapping internships and institutions requiring additional personnel.

Nearly all medical schools now have a graduating class each nine months. A full year internship now is required by Army and Navy regulations, by many state boards and, in some instances, by medical schools. In March and April new groups of interns are entering hospitals for their internships with interns from last year still having three or more months left to complete their required service.

It is the consensus of organizations concerned, sitting with representatives of the three surgeon generals and of Selective Service, that there would be no objection to utilizing these overlapping internships elsewhere, such as in approved hospitals without adequate personnel, if the hospital in which the first part of the internship was served will certify to a full year's service. This opinion was concurred in by representatives of the Council on Medical Education and Hospitals of the American Medical Association, the Advisory Board for Medical Specialties, the Federation of State Medical Boards, the American Hospital Association, the American College of Surgeons, the Protestant Hospital Association, the Catholic Hospital Association and the Association of American Medical Colleges.

A REVIEW OF THE CASES ADMITTED ON THE EYE SERVICE AT THE RILEY HOSPITAL FROM 1936 THROUGH 1942

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At the James Whitcomb Riley Hospital for Children, in Indianapolis, there were one thousand sixty-one admissions on the eye service during the past six years. These patients, who came from all parts of the state, presented a wide variety of ocular conditions which have been reviewed for this paper. Comments of interest to the general practitioner were added. The list included a few cases admitted to the wards on other services where the ocular pathology was noted. Not included were a great number of outpatients whose condition did not require hospitalization for study or therapy.

Most of the cases could be classified in one of the following groups:

Developmental Anomalies:

Congenital cataract	54
Dislocated lens	6
Ptosis	16
Infantile glaucoma	9
Macrophthalmos	1
Microphthalmos	5
Atresia of lacrimal passages	13
Pigmentary degeneration of the retina	1
Anophthalmos	1
Aniridia	2
Coloboma of iris	1
Persistent Bergmeister's papilla	2
Detachment of retina	1
Albinism	2

Inflammatory Conditions:

Gonorrheal conjunctivitis	24
Trachoma	8
Interstitial keratitis	29
Transferred vaccination	3
Acute conjunctivitis other than Neisserian in origin	23
Iritis	9
Endophthalmitis	3
Orbital abscess	4
Orbital cellulitis	5
Abscess of eyelid	4
Blepharitis ulcerosa	2
Corneal ulcer	22
Phlyctenular keratitis	4
Staphyloma corneae	3
Recurrent vitreous hemorrhages	1
Disseminated choroiditis	2

Injuries 54

Complications:

Panophthalmitis	6
Blood staining of cornea	5
Secondary glaucoma	9
Phthisis bulbi	7
Exophthalmos due to hemorrhage or serum in orbit	2
Rupture of choroid	1
Hyphemia	3
Iridodialysis	2
Retinal detachment	5

Tumors:

Retinoblastoma (Developmental)	5
Dermoid	9
Mucocele	1
Rhabdomyosarcoma	1

Strabismus 212

Miscellaneous:

Secondary glaucoma, postoperative	2
Hysterical amblyopia	1

Although each individual child may have had several conditions present, his case was usually listed only under the most important classification.

The developmental anomalies seen would delight any student of embryology. The majority, of course, were observed as outpatients and, therefore, not classified here. However, the admissions included the various types of abnormalities listed by Mann:[1]

1. An arrest of development in which a structure resembles that which would normally be present at an earlier stage. For example, there may be a congenital atresia of the lacrimal passages, a condition in which the sac and/or duct do not become canalized.

2. An aberrance in which the structure resembles no normal stage. This is well illustrated in the congenital cataract.

3. An arrest plus a superimposed aberrance. The microphthalmic or abnormally small eye with a cataract represents these two factors.

Again and again the patients with ocular anomalies exhibited abnormalities of other systems. The influence of heredity was seen frequently.

Congenital cataracts comprised the largest number of this group, namely, fifty-four. These cases were admitted for surgery. In most of the patients the condition was bilateral. The hereditary nature of some of these opacities was well illustrated by several startling case histories. Eighteen members of one child's family were known to have had congenital cataracts. Of four siblings two were afflicted. The mother, the maternal grandmother and fourteen other relatives were victims. The marriage of two former students of the School for the Blind, both having been there because of congenital cataracts, produced three children who had bilateral developmental lens opacities. The continuous direct inheritance was likewise illustrated in a fourteen-year-old patient whose father and paternal grandfather had lens opacities discovered when they were children. Such histories must not be ignored when these patients come to physicians for advice regarding marriage.

Six children with congenitally dislocated lenses were studied. Defective vision ranging from 20/65

[1] Mann, I.: Developmental Abnormalities of the Eye, Cambridge University Press, p. 6, 1937.

to 5/200 was present. While surgery in such cases was formerly considered of little avail, recent results make it seem worth while. The diagnosis of this condition may be suggested to the general practitioner by a tremor of the iris produced by movements of the head or eyes. The lens in its abnormal position is unable to support the margin of the iris, which then hangs loose like a curtain. Usually the rounded edge of the lens cannot be seen unless the pupil is dilated. Subluxated lenses may be a part of a general picture known as Marfan's syndrome in which abnormally long bones of the legs, arms, hands and fingers and a scoliosis are seen. The condition may be familial and is more apt to involve males.

Sixteen cases of ptosis or drooping of the eyelid were seen. A number of these also exhibited an epicanthus, or fold of skin over the inner canthus; in several patients anomalies of the extra-ocular muscles were seen. There was one case of Marcus Gunn's phenomenon of jaw-winking reflex. This child could raise her right upper lid only when her mouth was opened or when the lower jaw was moved to the right.

The plea recently has been made for early correction of ptosis. "Crutch" glasses, which raise the lids, can be worn satisfactorily by many two-years-olds. Surgery can and should be performed before school age. Such attention, while the child is young, was recommended in order to avoid or to enable the correction of the amblyopia which is sure to develop from disuse of the eyes, as well as to prevent abnormal postural habits. Children do not outgrow ptoses.

The surgical technics for ptosis correction are many and varied. Most of these are based on a shortening of the levator muscle and tarsal plate or the utilization of the occipitofrontalis muscle or of the superior rectus muscle if the latter functions normally.

Nine cases of infantile glaucoma were admitted for surgery. The prognosis in this condition is at best none too good. Usually in spite of therapy the increased intra-ocular tension causes loss of vision through pressure on the optic nerve. The diagnosis is not suspected until an actual enlargement of the eyeball takes place. According to Gradle[2] one-third are recognized before the first year and two-thirds develop before the tenth year. Our youngest case was first seen at the age of four and one-half months because of photophobia and tearing due to a keratitis. The enlargement became apparent at the age of six months. A familial tendency has been reported.

Cysts of the retina were found in a macrophthalmic eye which was removed because of repeated inflammatory episodes. Congenital cataracts were also present in both eyes. The tension was never found to be elevated.

Microphthalmos was observed in five cases. Four of these also had congenital cataracts.

Thirteen cases of congenital atresia of the lacrimal passages were admitted to the hospital for probing or for dacryocystorhinostomy. The latter is an operation whereby an artificial opening is made from the lacrimal sac into the nose. When the lacrimal duct fails to develop completely, tearing and a slight mucopurulent discharge develops shortly after birth. The absence of conjunctival injection aids in differentiating this condition from conjunctivitis. The sac may enlarge and an actual inflammation set in. Some cases are self-limited. Some develop drainage after the application of digital pressure over the sac; others must be mechanically opened with a probe.

The night blindness of pigmentary degeneration of the retina brought one child to the Riley Hospital. This condition is bilateral and frequently hereditary.

Absence of the whole or a part of the eye is a rare anomaly. We have had one child whose right eye was missing. The lids were rudimentary and the orbital bones small. The left eye was normal. Two children, brother and sister, exhibited the red-black pupils of aniridia, or congenital lack of iris. Another child apparently had no lens but rather a partially vascularized membrane in one eye; the other eye exhibited an extreme microphthalmos. One child with congenital colobomas or notching of the irides was admitted to the hospital for other causes.

The persistence of the fetal mass of glial tissue which surrounds the base of the hyaloid artery and is known as Bergmeister's papilla was seen in one eye in each of two children. These masses have the appearance of tumors, but do not change.

A congenital detachment of the retina in the one microphthalmic eye of a premature baby greatly resembled the picture produced by retinoblastomas, more commonly known as gliomas. Poor transillumination made the presence of a new growth seem likely. The other eye was normal.

Two children with albinism were admitted on another service. Usually the visual acuity of these patients is decreased even when the proper glasses are worn.

Of the nineteen tumors seen in children, five were intra-ocular. These were retinoblastomas. The yellowish-white pupillary reflex known as an "amaurotic cat's eye" is almost characteristic of this condition. Two of our three cases had bilateral growths. The mother of one two-year-old boy, who had involvement of both eyes, had had one eye removed at the age of two because of the same type of tumor. The child was first treated with x-ray therapy. One eye responded with definite shrinkage of the malignancy; the other was enucleated early because of the continued enlargement in size. Six months later when the growth in the first eye increased again, in spite of therapy, it too was removed. While x-ray failed ultimately

[2] Berens, C.: The Eye and Its Diseases, W. B. Saunders Company, p. 729, 1936.

to save the eye, it did give the child six more months of vision. He is still living and well, almost three years after the surgery. The other bilateral case was transferred to another hospital for surgical removal of the eyes; the subsequent history is not known. The third child succumbed to metastases to the brain one year after enucleation.

The nine dermoids included three under the brow, one in the orbit and six at the limbus. One tumor at the limbus included a cartilaginous structure and was classified as a teratoma. The mucocoele was an outpouching from the frontal sinus lining and had markedly displaced the eye temporalward and so eroded the surrounding bones that roentgenograms gave the impression of malignancy. The rhabdomyosarcoma of the orbit was a rapidly growing tumor which responded well to x-ray therapy, only to have a rapidly fatal recurrence. This extremely rare tumor arises from striped muscle.

Retinal detachment is very unusual in children. The five cases listed were exclusive of those caused by tumors. Three of them followed severe penetrating injuries. Diagnosis was made when the eyes were enucleated. The two others were considered suitable for a reattachment operation. One of these gave a history of a jarring, but non-penetrating injury. No story of trauma could be elicited from the second.

The cases listed under inflammatory origin were of wide variety. Twenty-four cases of gonorrheal conjunctivitis were listed; except for two, these were in very young babies. The cases were distributed as follows: 1937, 7; 1938, 7; 1939, 4; 1940, 1; 1941, 0; and 1942, 4. The influence of the sulfonamides was given credit for the marked drop in 1940 and 1941. The recommendation in 1939 by the Section of Ophthalmology that 1 per cent silver nitrate be the only method of credé prophylaxis was also considered as a factor. With four cases in 1942, however, we shall have to wait to see if the decrease was real or only apparent. The physician who diagnoses a case of unilateral ophthalmia neonatorum should immediately be concerned with preventing involvement of the second eye. A Buller's shield can easily be fashioned from old x-ray film and adhesive tape. The least that should be done, if the baby is being transported to the hospital, is to warn the parents to keep the pus from running from the involved to the uninvolved eye.

Since the use of sulfonamides the number of trachoma cases treated by the clinic has definitely decreased. Four cases were admitted in 1937, two in 1938, two in 1939, and none since then.

Twenty-nine cases of interstitial keratitis were admitted for therapy. The average age was 8.9 years at the time of admission. These children were treated with regular antiluetic therapy, intravenous typhoid "H" antigen or intravenous mixed typhoid vaccine at forty-eight to seventy-two-hour intervals, saturated solution of potassium iodide by mouth, and atropine locally. The number of doses of typhoid varied from three to eleven according to the severity and progress of the ocular involvement. The results of the use of riboflavin were noninforming. A few cases were treated with malaria therapy by the dermatology department.

Several years ago when vaccinations were being carried out during the smallpox epidemic, three children were admitted because of transfer of the virus to the lids. These lesions produced a marked induration, swelling and pustule formation about the bases of the cilia. The pustules paralleled the course of the vaccination on the arm. However, to our surprise these horrible appearing lesions left no scars on the lids. One case admitted in 1937 did exhibit a cicatricial ectropion due to the transfer of vaccination to the lower portion of the lower lid several years before. Fortunately, the cornea was not involved in any of the cases, for such involvement is always of a very severe nature. These cases would seem to be an argument in favor of covering vaccinations—long a controversial subject.

Fifty-four eye injuries were seen in the six years. The accidents were of a widely varied nature. Many were caused by BB shots, hammering on cartridges, hitting steel with steel, and flying arrows. An attempt at tearing adhesive tape caused the loss of one eye by a thumb nail injury; the fork being used to untie a knot in a shoetring penetrated another. A golf ball, paring knife, and scissors accounted for still others. There was one case of marked symblepharon, that is, adhesions between the lids and globe, which followed a lime burn. Burns with lye or lime are usually very destructive in their effects.

Sixteen of the eyes were injured so badly that they had to be removed. Six developed panophthalmitis, thereby leading to their removal. Most of the others were enucleated to prevent sympathetic ophthalmia. Five were complicated by blood staining of the cornea, which was caused by blood in the anterior chamber combined with increased intraocular tension. A unilateral exophthalmos was seen in one newborn. This was thought to be due to hemorrhage or serum in the orbit caused by the trauma of birth. The degree of prolapse was markedly decreased within a week and was entirely gone when the child was observed at two months. The other exophthalmos followed the penetration of the orbit with a fishing pole. Hemorrhage was responsible.

Strabismus cases made up the largest number of admissions. Two hundred twelve cases were admitted. While the majority had a simple lateral deviation, anomalies of the vertical muscles frequently were found. There were two cases of retraction syndrome in which the globe retracted back in the orbit on internal rotation because of the abnormal fibrous nature of the muscles. Accompanying the retraction was a narrowing of the palpebral fissure and over-shoot upward of the eye-

ball. There was no rotation laterally beyond the midline. One case of strabismus fixus with almost no rotation of the globe was recognized. At surgery the very heavy internal rectus was found to have an abnormally wide insertion. A supranuclear paralysis caused complete lack of lateral and medial rotation of the eyes of a fourteen-year-old girl. Congenital absence of the external rectus muscle was found at surgery in a six-year-old boy.

The ideal aims in therapy for strabismus are threefold:

1. To overcome amblyopia, if present, due to disuse of the deviating eye.
2. To make parallel the visual axes.
3. To establish fusion or the ability to use the two eyes together.

The first aim, that of normal acuity for both eyes, is of increasing importance in this day when most people must have a physical examination before each new job. In order to obtain this in the monocular squint, it is necessary that the child be seen early. As a rule the sooner the therapy is started the more hope one can have of overcoming the amblyopia. Occlusion of the straight eye can be carried out even before co-operation, for refraction is possible. With the use of the inturning eye, development of acuity is encouraged. Co-operation of the parents is necessary. The acuity should be built up as much as possible before surgery.

In cases of alternating strabismus, in which the child uses first one eye and then the other, usually both eyes have a good acuity. Occlusion in those cases is unnecessary. Refraction should be done in all cases as early as possible. In many cases glasses can be fitted at the age of eighteen to twenty-four months.

In most cases of strabismus the surgery should be performed before school age. The effect on the child's personality is obvious. The actual number of degrees of deviation of these eyes can be measured on the arc of a perimeter, by means of prisms or more roughly by a study of the location of light reflexes on the corneas. At surgery the actual number of millimeters the muscle is receded or advanced may be measured.

The achievement of the third aim, that of fusion, is not possible in many cases of strabismus. Orthoptic training before or after surgery does help materially in enabling children to use the two eyes together.

The influence of heredity was seen repeatedly when two or more members of the same family were admitted to the hospital because of strabismus.

Summary:

The ocular conditions seen in cases admitted to the James Whitcomb Riley Hospital for Children during a six-year period were reviewed, with comments made for the general practitioner. Included were one hundred fourteen cases with congenital anomalies, fifty-four injuries, five with retinal detachment, one hundred twenty-six inflammatory conditions, fifteen tumors and two-hundred-twelve cases of strabismus.

ABSTRACTS

CONVALESCENT SERUM FOR EYE DISEASE

"The present widespread occurrence of epidemic keratoconjunctivitis in important industrial areas and the failure of all types of therapy justify the focusing of attention on the use of convalescent serum as a possible means of treatment," Alson E. Braley, M.D., and Murray Sanders, M.D., New York, declare in *The Journal of the American Medical Association* for March 27.

In their preliminary report, Drs. Braley and Sanders say that "In the present group of 10 cases, 9 showed striking clinical improvement a short time after intravenous injections of human convalescent serum were given. . . ."

REPORT ON STUDIES ON PASSIVE IMMUNITY AND ACTIVE IMMUNITY TO TETANUS

Information on several important questions concerning the treatment and prevention of tetanus, particularly as regards the duration of passive immunity and its effects on active immunity, is reported in *The Journal of the American Medical Association* for April 10 by Jean V. Cooke, M.D., St. Louis, and F. G. Jones, Indianapolis. Their report is based on observations on the immunization of children with clinical tetanus and of normal children. Passive immunity is that which depends on defensive factors not originating in the individual protected, but which is acquired by injection of immune substances produced elsewhere. Active immunity is that which is obtained by the active participation of a person's own body in producing immune substances—antibodies or antitoxins.

From their study of active and passive tetanus immunity on 39 children on whom more than four hundred tetanus antitoxin measurements were done, the two authors found that although passive immunization with the usual prophylactic dose of 1,500 units or less produces an immunity of only approximately three weeks, larger doses cause a much more prolonged immunity.

In 4 children with clinical tetanus it was observed that antitoxic immunity did not follow recovery from the disease.

The two authors report that "A passive immunity can be converted into an active immunity by toxoid injections. It was observed, however, that this transition can be produced as readily and as rapidly when the initial active toxoid injection is delayed several weeks as when it is started simultaneously with the antitoxin injection. After passive immunization with 10,000 units of antitoxin and with toxoid injections at two week intervals an active immunity developed in from eight to twelve weeks regardless of whether the first toxoid was given simultaneously with the antitoxin or whether it was delayed two, four or six weeks. . . ."

The authors say that their observations tend to refute the value of simultaneous injection of antitoxin and toxoids in the production of active tetanus immunity and show that a delay of active immunization from two to four weeks following the antitoxin injection is indicated.

SOME OBSERVATIONS ON HEADACHES OF OCULAR ORIGIN

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Almost everyone will agree that headache is one of the commonest symptoms with which the average physician is called upon to deal. The variety of headaches, as well as the multiple etiological factors, will always present a challenge to the astute diagnostician. Headaches may vary in intensity from the knife-like scintillating pain, associated with tic douloureux, to the dull transient headache which causes but slight discomfort to the patient, and for which he seeks relief by the use of aspirin tablets rather than consulting a physician.

The severity of the headache does not alone indicate the seriousness of the etiological factor nor does it indicate the ultimate outcome so far as the patient's future happiness and well-being is concerned. People suffer for years with migraine headache of great intensity, yet it apparently does not shorten their span of life. On the other hand, a dull morning headache may be the first symptom that is apparent to the patient of this approaching hypertension and if the warning goes unheeded and the disease is not treated, it may, indeed, shorten the patient's life. Such observations, I am sure, come to all of us. The main problem still remains, that of determining the headaches that are of a serious nature and those which, although equally or more severe, do not threaten life but only constitute unpleasant situations and are usually treated symptomatically. Headaches associated with ocular symptoms are frequently not of ocular origin, such as migraine. Others, equally as severe, are not immediately associated with ocular disease in the mind of the average physician. Since this further complicates the picture, I shall endeavor to point out some signs and symptoms that will better enable the physician to distinguish between the two types.

Many physicians with whom I have conversed say that their knowledge of the eye is very deficient. Some even seem to pride themselves on their lack of knowledge of the eye, and in the same breath hasten to convey the idea that they have no intention of treating diseases of the eye. Patients often seem to sense this fact, at least many of them nowadays recognize early symptoms of asthenopia, and proceed directly to the office of the ophthalmologist. I am not prepared to put the stamp of approval on this procedure. Not only is there a duplication of effort, but I think we have to admit that in many instances the ophthalmologist could well be criticized for his failure to evaluate the patient as a whole, forgetting for the moment the various etiological causes of headache other than ocular conditions. Criticism could probably be directed equally at both the ophthalmologist and the general physician for failure to relieve chronic or recurrent headaches.

In the following paragraphs I will direct attention to a few—and only a few—of the eye diseases that commonly cause pain and usually are not recognized, at least in their early stages. For a number of years I have noticed that about a third of the patients sent to me with a preliminary diagnosis of cataract do not have cataract. Cataract is too commonly confused with glaucoma. The confusion of symptoms of early glaucoma with those of asthenopia would be more excusable. Actually, the early symptoms of these two conditions may not differ greatly, and after careful taking of then tension I have become convinced that the early stages of uncorrected presbyopia often result in some slight transitory rise in tension within the eyeball in some people. The subjective discomfort of early increased tension and asthenopia is frequently similar. Many complain of mild or severe eye discomfort; in either case the patient will complain of blurring of vision at times, with a feeling of tiredness in the eyes, and lacrimation. There are few subjective symptoms in a chronic glaucoma other than a rather gradual loss of vision. In acute glaucoma, which it seems to me is more generally associated with variable periods of chronicity, the symptoms are extreme. The most confusing factor is that the pain often is not referable to the eyeball but to areas back of the eyeball and temporally, and that it frequently is associated with nausea and vomiting, which symptoms tend to lure the physician away from the eyes in his search for the cause of the illness. One thing the physician might well remember is that a large percentage of glaucoma patients wear rather strong lenses, since 60 per cent of the cases of glaucoma develop in patients with a short eyeball, or one with a hyperopia of two and one-half diopters or more. Less than 5 per cent of the people wear lenses of this strength. The physician will do well to take note of those of middle age, or just beyond, who wear stronger than usual lenses and complain of eye discomfort or severe headaches with nausea and vomiting. This one point may enable him to conserve the vision of several of his patients in the course of a few years' time. Further inquiry as to the presence of recent blurring of vision, flashes of light and halos about artificial lights may assist in differentiating the ocular symptoms that precede migraine. In addition, I direct attention to the fact that few patients with migraine complain of flashes of light, but more commonly of waviness of vision, associated with hemianopsia. More important is the fact that a patient suffering from migraine nearly always

gives a previous history of a similar type of headache, whereas a patient who is the subject of glaucoma rarely does. Most of the textbooks mention the green color of the pupillary area seen in some cases of glaucoma, as well as dilatation of the pupil, but in my experience these have not been early symptoms. Although they are objective signs, I doubt that they are of material assistance to the average physician in making an early diagnosis. The main thing is to recognize the earlier symptoms of what may be called the preglaucomatous state, which may be transitory and may occur many times in the course of several weeks before the actual acute onset takes place. Here is where the patient can be helped if he is to be helped at all.

In speaking of migraine it might be well to remember that these are among the patients who often go directly to an ophthalmologist, or possibly may have consulted several physicians who, in turn, have exhausted their armamentarium of therapeutics without appreciable benefit to the patient. The ophthalmologist should be conservative in promising relief. Usually these patients have little or no error of refraction. Some who do have minor errors seem to feel that they are benefited by the correction of these errors. The clinical picture is quite well recognized by both the ophthalmologist and the general physician. The treatment, once the diagnosis has been confirmed, is systemic and, so far as I know, is mostly palliative.

At no time within my experience have so many patients suffered from asthenopia as today. It is not difficult to explain the cause; people are doing more precision work and for longer periods of time, particularly in defense work, but also in other industries. Since the ophthalmologist has seen more cases of eyestrain, it seems reasonable to believe that other physicians have also seen more such cases. This type of headache is often recognized by the individual who suffers the discomfort. The typical headache of eyestrain is either bitemporal or occipital, coming on in the afternoon and growing progressively worse. In some instances it is associated with ocular muscular spasm in which the pain becomes acute and severe. The pain in this instance is in the eyeball itself and is usually associated with blurring of vision. Headaches resulting from eyestrain are commonly confused with headaches of sinus origin, but should not be. Headaches of sinus origin are almost invariably associated with other symptoms referable to the nasal passages, such as nasal and post-nasal discharge, or more frequently congestion of membranes or obstruction to breathing. The location of the pain depends to a great extent upon the sinus involved. It is usually present in the early part of the day and tends to improve as the day wears on or as the drainage from the sinus improves. Eyestrain headaches, especially in nervous people, may result in dizziness, and less commonly in nausea and vomiting. Distinguishing between the etiology of headaches resulting from eyestrain and those resulting from sinus infection should not be difficult for the ophthalmologist. To me, differentiating between early glaucoma and asthenopia has been far more puzzling.

With the discovery of the efficacy of the sulfa drugs in trachoma we may look for marked improvement in the progress of eye conservation in the state of Indiana. Elimination of trachoma as a cause of blindness is not only possible but well within the bounds of probability and should be very rapid in the next few years. Early diagnosis and tendency toward earlier operation not only in mature but in immature cataract should result in improvement in the visual conservation of these cases. The insidious nature of glaucoma in chronic cases and the rapid destruction of the optic pathways in cases of acute glaucoma make this problem more difficult. If progress is to be made, an educational campaign would be beneficial, resulting in detection of glaucoma in the incipient stage and bringing about more prompt treatment thereof. This is especially true since a larger percentage of the population now live to the glaucomatous age. Lack of improvement in early detection of glaucoma could easily result in an increase in this cause of blindness. If this contribution aids in the detection of a few more early cases, the write will feel more than repaid for the effort put forth in its preparation.

ABSTRACT: DESCRIBES A FREAKISH INJURY WHICH MIGHT OCCUR IN ARMED FORCES

A freakish injury to a civilian is described in the current issue of *War Medicine*, published by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council, by John A. Siegling, M.D., Charleston, S. C., because, he says, it is one that might be encountered in military practice.

A Negro had been striking a cold chisel with a hammer and while doing so felt sudden pain in his left forearm. On examining the painful area, he discovered a small wound on the inside of his arm, just below the bend of the elbow. As there was free bleeding he left his work immediately and reported to the hospital. An x-ray revealed a small metallic foreign body about two inches from the wound in the skin. Steps were taken to remove it while the patient's arm was under a fluoroscope. The patient lay on a table, his arm raised, and preparations were made to start the operation. When the fluoroscope was turned on no foreign body was visible and an x-ray film, made immediately afterward, also failed to reveal it. The patient was asked to return the next day for an x-ray examination of his chest at which time the foreign body was found in the lower part of the right lung. It had been carried through veins to the heart whence it had been pumped into the lung.

When the patient was last seen six months after the accident, he stated he had never experienced any symptoms referable to his chest as a result of the foreign body.

LACERATION OF THE EYELIDS

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Nature arranged to protect the eye with the overhanging eyelids and the walls and margins of the bony orbit. The orbit may be described as a truncated cone, the base of which is formed by the bony rim and eyelids. Eyelid injuries are often accompanied by injury of surrounding parts of the face and may be evidence of damage to the eyeball, other structures in the orbit, or to the cranium.

The eyelids do not have well-defined boundaries. The upper eyelid is limited by the eyebrow, and the lower eyelid extends into the cheek without sharp demarcation. One can also consider the eyelids to be the tissue demarcated by the bony rim of the orbit. The skin of the eyelids is soft and thin and is loosely attached to its bed by a lax and nonfatty connective tissue. It is readily displaced from its bed and is subject to marked distortion by scars. It may become wrinkled and stretched by edema and is affected by ecchymosis to a much greater extent than other parts of the face or body where the skin is more firmly united to its bed. The eyelids join at the temporal side of the orbit into a firm thickened band of tissue called "the external canthal ligament," which is attached to the periosteum. The medial termination of the edge of each eyelid ends in a firm band of connective tissue that passes back and medialward where the two unite and then attach to the periosteum near the upper pole of the lacrimal sac.

The lacrimal punctum and canaliculus are near the medial termination of each eyelid and conduct the tears to the lacrimal sac. The punctum is a small opening in the margin of the eyelid, which marks the entrance to the canaliculus. The latter runs medially four to six millimeters where the upper and lower unite and enter the lacrimal sac near the upper pole of that structure. Improper position of the punctum or interruption of the canaliculus, particularly in the lower lid, will cause annoying epiphora. These points must be remembered when repair of the eyelid is undertaken.

There are two muscles in the eyelids with which we are particularly concerned. One is the orbicularis oculi. This one is formed of arcuate fibers that encircle the eyelids. An incision parallel to these fibers produces no gaping of the wound, but one made at right angles to them, or vertical to the edge of the eyelid, will produce wound gaping and lead to extensive scar formation. The other one is the levator palpebrae superioris, which is a special muscle to elevate the upper eyelid. This arises near the apex of the orbit in association with the superior rectus muscle. It passes forward close to the roof of the orbit and flattens out beneath the superior orbital rim. The tendon runs downward beneath the fibers of the orbicularis oculi and is inserted into the anterior surface of the tarsus of the upper eyelid. Damage to, or interruption of, the levator tendon will produce drooping of the upper eyelid with disfigurement and visual disability.

The eyelids are profusely supplied with blood vessels that are derived from two sources, orbital and facial. In each eyelid there is a marginal and peripheral vascular arcade with communicating plexuses. Due to the abundance of the blood supply healing of the eyelids takes place with greater ease and rapidity than would be the case if the arterial supply came from a single source. It aids in recovery when plastic repair of the parts is undertaken at a date later than the initial injury.

This article will be limited to a consideration of incised and lacerated wounds of the eyelids with suggestions for their repair. These injuries may be produced by any sharp object—in industry, domestic life, transportation or in war. Infants may be injured by sharp or pointed toys. One type of injury may be accompanied by others, so that a laceration may occur with a puncture wound, contusion or abrasion since these injuries result from the exercise of considerable force.

The general principles of surgical repair for the eyelids are the same as those employed for other parts of the body, with modifications adapted to the structure and function of the tissue involved. Careful appraisal of the extent of injury should be made before surgical repair is undertaken.

Fracture of the bony rim of the orbit with displacement of fragments and extension into the nasal sinuses or cranium, with injury to the meninges and brain, may be present. The surgeon should inspect the wound and palpate the bony structures for evidence of such an injury. The method of repair must meet such complications. If the cranium is involved the services of a neurosurgeon should be sought, if one is available. Displaced bone fragments may be replaced by manipulation, but if they do not remain in position one may have to insert fine catgut sutures into the periosteum. If the laceration extends through the eyebrow into the forehead, the underlying periosteum is invariably split. It will roll back upon itself. The edges of the periosteum should be united by fine catgut sutures to avoid an unsightly depressed scar. The overlying skin is united by fine sutures, preferably black silk, but any fine smooth suture material may be used.

The eyeball should be examined carefully. The same instrument that inflicted the eyelid injury may cut the eyeball, and it is much easier to repair the latter before swelling of the tissue takes place than after swelling and distortion occur. Also, if the eyeball can be saved immediate repair is im-

perative. The essential signs of laceration of the eyeball to look for are reduction of ocular tension, prolapse of intra-ocular tissue, and hemorrhage either into the anterior chamber or vitreous body. The conduct of repair of wounds of the globe must be governed by the circumstances presented and are outside the scope of this article.

Careful search should be made for foreign bodies. It is not unusual to find pieces of metal, a thorn, fragments of wood or particles of glass in the wound, depending upon the surroundings where the injury occurred. Glass is difficult to detect when in the tissue and covered with blood. Opaque objects are found with the x-ray, and when in the orbit may be removed under fluoroscopy. Small particles of metal may be left undisturbed in the orbit providing their location does not endanger vital structures and the substance is one that does not lead to tissue necrosis.

It may be possible to identify small particles of glass with x-ray, but some kinds of glass are not opaque to the rays. Glass is relatively inert when buried in the tissue. A particle of glass may cause pain if lying against the periosteum or in a structure whose function requires motion. It is better to remove all foreign bodies, even though quite small, than to close the tissue over them.

A young lady consulted me who had been injured some ten months before in an automobile wreck. Her face had been cut with glass. She suffered a laceration of the cheek, which extended through the inner third of the lower lid, obliquely, up and medially across the inner canthus, but fortunately had not severed the canaliculus. There was a bulging mass at the upper pole of the lacrimal sac which resembled a chronic lacrimal abscess. Investigation failed to disclose the presence of pus in the sac, but pressure over the swelling was painful. A hard mass was felt with the finger tip. I removed a piece of glass six millimeters long and one and one-half millimeters thick. The mass receded and healing was uneventful. The surgeon who made the initial repair had performed a very commendable service, for the original wound had been skillfully united. Unfortunately, the piece of glass was not found.

When a general anesthetic is not required for other surgical work, the use of block anesthesia with novocain or procaine is the method of choice, except in young children. This consists in injection of the anesthetic where the sensory nerves of the eyelids emerge through the periosteum about the rim of the orbit. I shall not recite the various sites for injection, but refer the reader to the clear and concise work of O'Brien upon that subject. Block anesthesia is more satisfactory than infiltration anesthesia, and there is less swelling of the tissue afterward.

The wound should be cleansed, but caustic drugs should not be used. Iodine or strong mercury solutions are to be avoided. It is safer to employ Dakin's or hypertonic salt solution than any of the chemicals that coagulate or necrotise tissue. Soap and water is satisfactory for the skin.

Debridement of seriously damaged tissue should be done cautiously. One cannot lose much of the eyelid without creating a condition which later requires extensive and skillful plastic surgery to repair the defect. Besides, the extreme vascularity of the eyelids may be ample to preserve tissue that would not survive in areas where the blood supply is not so ample.

The local use of sulfonal drugs is of questionable value, but the internal use of them in cases of cellulitis may prove of great assistance in controlling infection. Appropriate serums and antitoxins are to be used with dispatch. Laceration of the eyelids by the bite of a dog calls for the immediate use of Pasteur treatment. The bacillary infections that may be encountered are tetanus, gas bacillus, streptococci and staphylococci.

The surgical repair of a laceration of the eyelid will depend somewhat upon whether the injury is confined to the skin and subcutaneous tissue or extends through the entire thickness of the eyelid.

A small drain, such as rubber tissue or a few strands of silkworm gut, may be placed in the wound if there is reason to suspect infection and suppuration. A drain for a laceration confined to the eyelid is seldom required.

One should unite the margin of the eyelid first so that there will not be an unsightly and annoying eyelid notch or step. A fine curved cutting edge needle with silk suture is passed parallel to the body of the eyelid from one edge of the laceration to the other, and a square knot is tied on the edge of the eyelid behind the cilia. This reunites the separated tissue. The conjunctival surface of the eyelid is closed with fine interrupted silk sutures, and the skin is closed in a similar manner. A separation of the levator superioris tendon should be united with fine chromic catgut, and a vertical incision in the tarsus should be closed in a like manner.

If the lower eyelid has been lacerated and the wound extends through the margin and body of the eyelid, one should endeavor to shorten the inner edge by removing a small inverted V of tissue so that the eyelid will ride against the eyeball, but not enough to invert the cilia. If this is not done the eyelid may be everted. This eversion will produce epiphora by turning the lacrimal punctum, which is at the medial aspect of the eyelid, slightly forward and away from the globe. The tears are not conducted into the punctum and down the canaliculus. Likewise, the repair of a wound in either canthus requires a slight overcorrection to avoid later eversion of the eyelid with epiphora.

Laceration of the tissue through the medial canthus requires careful apposition of the parts. The plica semilunaris is a fold of conjunctiva which unfolds as the eyeball is turned to the temporal side. It is the remnant of the third eyelid. A com-

mon error which is easily committed is to suture the cut edge of conjunctiva to this fold of conjunctiva. This can be prevented by picking up both of the cut edges of conjunctiva with fine forceps and also identifying the plica semilunaris. The cut edges of conjunctiva are then united with fine black silk suture, such as six 0.

The lacrimal apparatus may be injured when the medial portion of the eyelid is the site of injury. If the canaliculus is severed one should endeavor to unite the parts. One may pass a small lacrimal sound through the punctum into the severed parts of the canaliculus and then unite the eyelid. Another method is to pass a chromic catgut suture, such as single 0, instead of the lacrimal sound and then permit the piece of catgut to remain in the canaliculus after the eyelid repair is accomplished. The metal sound must be removed when it is used.

In repairing lacerations of the eyelid the surgeon endeavors to retain normal function of the structure and to secure as good cosmetic result as possible. Frequently the general practitioner of medicine is called upon to repair such wounds and it is hoped that by reading this article he will be better able to render such service.

EYE INJURIES IN THE HOME

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The home is not a place where eye injuries are usually expected to occur, yet many minor and serious eye injuries do happen there. Some are due to carelessness, such as leaving scissors or any sharp instrument within the child's reach, others are purely accidental. Still another group results from a willful attempt by one individual to injure another. In many instances the causes, especially of serious injuries, are avoidable. It is a well-known fact that whenever people are made aware of certain dangers and informed as to the preventive measures, there is always an appreciable decrease in the number of injuries. Industry is the outstanding example of what can be done to reduce the accident rate. The home has been neglected. There will always be a small number of unfortunate accidents which can not be controlled.

For descriptive purposes home injuries will be considered in four groups: superficial and deep injuries, chemical burns, and contusions.

SUPERFICIAL INJURIES

Superficial injuries are probably the most common and certainly the easiest of all ocular injuries to treat. They may be caused by a child inadvertently scratching a parent's cornea, or by some light object such as a newspaper brushing across the front of the eyes. These injuries denude the epithelium, and the lid, rubbing over the area, causes a disagreeable scratching sensation. The area involved can readily be demonstrated by staining it with fluorescein. Superficial injuries heal with little or no scar formation, so there is rarely any impairment of vision. Treatment is directed toward putting the eye at rest so the epithelium can regenerate. This is best accomplished by applying a tight eye dressing which will hold the upper lid against the globe. Any of the local eye anesthetics will relieve the scratching if the dressing doesn't. The only danger from such an injury is secondary infection. To guard against this it is always advisable to instill an antiseptic, preferably 5 per cent sulfathiazole ointment. The same principle of treatment applies here as in a break in the continuity of the surface epithelium elsewhere on the body.

DEEP INJURIES

Deep injuries include those which penetrate the stroma of the cornea and those which perforate the eye. Any injury to the stroma heals with scar formation. The extent to which sight is affected depends on the location of the scar and its density. Proper and prompt treatment will keep down the size of the scar by reducing the inflammatory reaction and its duration. There is always some degree of iris and ciliary irritation in a deep injury of the cornea, so the pupil should be kept dilated with a cycloplegic. Homatropine, 2 per cent, is adequate in most cases.

A wide variety of objects and playthings are capable of perforating the eye. Allowing a young child to have access to a pair of scissors, an open knife, a knitting needle or any pointed object is jeopardizing the sight of at least one eye. Children are always running and falling, and if they happen to be holding one of these objects they may sustain some injury about the face. If the eye is involved it is usually a perforating injury. More common, but just as serious, are the injuries which older children accidentally inflict on their playmates with shooting toys. Spring guns are capable of discharging a missile with sufficient force to rupture an eye if the victim is close enough. Several such cases have been treated at the Indianapolis City Hospital. At the same institution three to five eyes which have been perforated by a BB from an air rifle are removed each year. It is never the owner of the gun who is hurt, but some innocent playmate. As long as toys of this type are available and parents continue to buy them, the only protection we can give to children is to make them aware of the danger. If the child is not old enough to understand, he certainly shouldn't be allowed to own one.

Men working in their homes may sustain a

perforating injury. A common cause is hammering against some hard metal, such as a steel chisel. When a piece of metal flies off one of the surfaces (usually the hammer) it travels at a terrific speed and easily perforates the eye because of its sharp edges. In some instances the foreign body is so small that the site of the perforation is almost immediately sealed off, and the patient consults a doctor only because his eye remains irritable. Practically every perforating injury requires surgery either to repair the damage done or to remove the eyeball and thus protect the fellow eye from a sympathetic inflammation. The choice depends upon the judgment of the ophthalmologist, and each case must be individualized. Any eye that might contain an intra-ocular foreign body should be x-rayed even if only for medicolegal purposes.

CHEMICAL BURNS

Chemical burns of the eye produce the most serious type of ocular injury. Many people keep acids, caustics, caustic mixtures of ferric chloride and corrosive sublimate in the house. They are used for cleaning household articles, the caustics particularly being used for dissolving the waste products that accumulate in drain pipes. Any one of these agents can cause severe damage to eye tissues, but the alkalies are far more devastating than the acids. One common caustic agent found on the market is potassium hydroxide. However, since lye (sodium hydroxide) is cheaper, this is the one commonly used. Lime (calcium oxide) is used industrially, but rarely used in the home. It combines with tissue fluids to form calcium hydroxide, or slaked lime. The heat generated by this chemical has a very deleterious effect on tissues, in addition to its chemical action. Ammonia is found in nearly every home. Burns from this agent are very severe. Ammonia is hydrophilic, so the tissues become dehydrated and form albuminates. A rapidly-spreading necrosis occurs. In addition, ammonia permeates the cornea and forms ammonium hydroxide in the anterior chamber. Damage to the intra-ocular structures from this compound is very extensive. Sulfur dioxide and other refrigerants are capable of producing serious burns. These agents usually escape during an explosion which suddenly releases a large amount. Burns, of course, can be produced by live steam or boiling water. As a rule they are not as destructive to the eye as chemical burns.

Lye burns of the eye are very common and, unfortunately, the most disastrous. The part of the cornea involved becomes permanently opaque. If the limbus is affected, and it usually is, the vascular plexus, which provides the nutrition for the cornea, undergoes complete necrosis. There is almost always some involvement of the palpebral conjunctiva because the lye is in solution and readily spreads over the tissues. The action of the caustic is continuous since there is no suitable agent to neutralize it. This, plus the fact that the cornea is deprived of some of its nutrition, makes it impossible to accurately estimate the final outcome when the patient is first seen. Prognosis must always be guarded. Recently I had the unhappy experience of observing two severely burned eyes in which the prognosis for vision was zero. However, it seemed that the patient would at least retain his globes. Ten days after the accident both corneas sloughed and a spontaneous evisceration followed.

In a lye burn which involves the palpebral conjunctiva the cornea is further traumatized by the burned conjunctival surface. To protect the cornea many ingenious methods have been suggested, to cover this structure with some sort of membrane. Dr. Robert Masters and I tried to use rabbit peritoneum on two eyes, according to the technique described by Brown.[1] We were not successful. Recently we tried a mucous membrane graft. The mucous membrane was obtained from the mouth of the patient's mother. The patient had severe mouth burns, which prevented our using his own mucous membrane. Here again we were unable to maintain the vitality of the membrane and were forced to remove it after forty-eight hours. These two patients, and a third one, had lye thrown into their faces with malicious intent to injure them.

From what has been said, it is obvious that the treatment of chemical burns is very unsatisfactory. Certain palliative measures can be instituted. If the chemical is still in solid form, such as powdered lime or pieces of a caustic, it is best to remove all visible particles. If the agent is lime a so-called "neutralizing solution," 4 to 10 per cent ammonium chloride, or neutral ammonium tartrate can be used to irrigate the eye. Ammonia burns are best treated with frequent saline irrigtations and paracentesis. The ammonium hydroxide in the anterior chamber must be eliminated. Paracentesis may have to be repeated until the aqueous no longer contains any of the alkali. This is probably a good procedure for any burn of the cornea since decompression increases the nutrition to the cornea. Burns from sulfur dioxide and other refrigerants should be treated with olive oil or 3 per cent sodium carbonate in 75 per cent glycerine, since these chemicals are insoluble in water. In all cases atropine should be instilled and bland ointments liberally applied. A glass rod can be used to break up early adhesions. Late sequelae of burns include symblepharon, corneal opacification with or without vascularization, and secondary glaucoma. Corneal opacities can in some cases be resected to improve the vision. Transplants are not successful because of the vascularization and lack of healthy cornea around the periphery where the graft must take. Plastic repair of adhesions and lid deformities is usually satisfactory. The accompanying burns of the lid and face are not to be neglected. These should receive prompt treatment

[1] Brown, A. L.: Lime Burns of Eye—Use of Rabbit Peritoneum to Prevent Severe Delayed Effects, *Archives of Ophthalmology*, **26**:754, (Nov.) 1941.

to prevent infection and unnecessary scar formation.

CONTUSIONS

Any blunt object can produce a contusion of the eye. Here again children are often the victims of their own playthings. Most spring guns fire a blunt missile. Falling on a hard object can have a contusing effect on the eye. Adults inadvertently, or otherwise, receive blows on or about the eye. Even though the lid closes in time to cover the eye, the force of the blow is often powerful enough to produce serious damage to the globe. Contusions vary in severity from a subconjunctival hemorrhage to rupture of the eyeball. Little can be done to hasten the absorption of a subconjunctival hemorrhage. Application of cold compresses in the first forty-eight hours, followed by heat on succeeding days, is probably the best treatment. Tears in the conjunctiva do not require suturing unless the wound is very large with wide separation of its edges. Folds or tears may be observed in Descemet's membrane, and if there is blood in the anterior chamber the cornea may become blood stained. The sphincter of the iris can be temporarily or permanently paralyzed. Traumatic iridoplegia is usually temporary. An iridocylitis often occurs which responds readily to treatment if there are no other complications. Another effect of such trauma is rupture of the iris or separation of the iris at its base, producing one or more additional pupils.

Hypotony not infrequently follows a contusion. The eyeball may become so soft that its tension can not be measured with a tonometer. This complication, plus the inflammatory reaction, is probably responsible for the late development of a complicated cataract. Nutrition of the lens is impaired when the ciliary body does not produce enough aqueous to maintain a normal tension. A cataract may also develop immediately following the trauma. This results from breaks in the lens capsule, allowing aqueous or vitreous into the cortex, or the lens may develop opacities without any break in its capsule because the lens fibers become separated. Contusions may cause a partial or complete dislocation of the lens. Slight subluxations will produce no immediate visual disturbance. It is always advisable to look for tremulousness of the iris in any contusion of the globe. Management of lens injuries is not covered in this paper. Each case is a problem unto itself.

The effect of contusion on the posterior part of the eye can only be determined by careful ophthalmoscopic examination. Massive hemorrhage into the vitreous produces a blackout of vision, and no fundus reflex can be obtained with the ophthalmoscope. When the hemorrhage absorbs, the full extent of the damage can be determined. Permanent scar tissue bands may form, especially if there has been an inflammatory reaction. Contraction of these bands may pull off the retina. Prognosis for reattachment in such a case is poor.

Tears in the choroid are common since this vascular membrane has no elasticity and can not stretch when the pressure is suddenly increased by a contusion. The retina does yield slightly, so tears are not as frequent. Fortunately, choroidal tears do not involve the macula. Occasionally a choroidal detachment can be observed. Tears in the retina may be followed by retinal detachment. If one occurs in the region of the macula, there may be permanent loss of central vision. The detached area sometimes reattaches itself, but usually surgery is necessary. A tear or hole in the retina allows an altered vitreous to gain access to the subretinal space. This fluid is set in motion by ocular movements and gravity, so that more of the retina becomes detached. The only satisfactory treatment is to seal off the tear and reattach the retina by electrocoagulation. Often a slight contusion will produce a retinal detachment in an eye so predisposed. These eyes are usually myopic.

The macula can be injured by the contrecoup effect of a contusion. This may manifest itself by an edema with temporary or permanent loss of central vision. Hemorrhage from the central area of the choroid may appear in the macula. This sets up a series of reactions which lead to a hole or a cystic degeneration of the macula. The prognosis in any macular injury must be guarded. Only time can tell whether there will be any restoration of central vision. Trauma is rarely severe enough to produce an avulsion of the optic nerve. If rupture of the globe occurs from a contusion, it is usually in the region of the ciliary body, which is the weakest portion of the sclera.

It should also be mentioned that a contusion can activate a latent inflammatory process in an eye. I have seen interstitial keratitis in cases of both congenital and acquired syphilis start immediately following a minor injury.

Practically any type of eye injury can occur at home. Those which involve children are to a large extent avoidable. If parents can be impressed with the importance of not leaving sharp-pointed objects within the reach of youngsters, a common source of perforating injuries can be prevented. Children who play with guns must be taught how to use them safely. Firecracker injuries have been eliminated as a result of the Indiana state law, and we hope that they will never return. It is surprising how seldom ocular injury, even in young children, is sustained from glasses. Chemical burns occur mostly in adults. Some are accidental, but many result from the carelessness of an individual who did not appreciate what might happen from such a burn. Minor injuries respond quickly to treatment if infection does not occur. Every intra-ocular injury requires careful study as to diagnosis and treatment.

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UNDILUTED SULFONAMIDE DRUGS IN SINUS SURGERY *

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Our purpose in presenting this report is to give our impressions of the effect of the undiluted sulfonamide drugs when used following sinus surgery, and to interest those of you who may not have used them in this and related fields.

As you know, there have been extensive reports in the literature on the topical application of these drugs, and I mention only a few. Livingston, in a paper on the local use of the sulfonamide drugs in acute mastoiditis (*The Journal of the American Medical Association* of January 27, 1941) gave an excellent review of this literature. Taylor, ("Misuse of Sulfonamide Compounds," *The Journal of the American Medical Association*, March 21, 1942) recommends caution by demonstrating that pure sulfonamide drugs have the capacity of tissue irritation, and recommends that they not be buried in closed wounds. In the discussion of a paper by Aronson (*Transactions Indiana Academy of Oph. & Oto.*, April, '42) on the use of solutions of the sulfonamide drugs in our specialty, I stated that for some months I had been encouraged in the use of these drugs in powder form after sinus surgery. Kern (*Arch. Otolaryngology*, July, '42) states a favorable experience with the use of gauze packing impregnated with the powder after intranasal and sinus surgery.

About a year ago it occurred to the writer that the sulfonamides in pure form might play a very useful part in preventing reactionary inflammation in the raw surfaces created by sinus surgery. Here there are more or less large areas of bone, denuded of infected mucoperiosteum, lying exposed in a necessarily infected field. Our effort has been to use it on these raw surfaces only, as in the denuded bone following ethmoidectomy where there is a considerable area of this kind.

This report covers observations on eighty cases of partial or complete ethmoidectomy, of which thirty-nine were bilateral. These were all intranasal operations except three which were external, and all presented a considerable raw infected surface on which the powder was used. The drug was omitted in the uncomplicated submucous operation, as there is only a minimal exposed raw surface presented following this operation. The use of the powder on the mucous membrane of the nose has seemed to us to result in a reactionary inflammation of a definite degree (its high P_h.), as demonstrated by blowing the powder into one side of the nose, having the other untreated side as a control, in the office care of nasal infection. For this reason its use was confined to raw surfaces only.

Its effect on the denuded bone of the ethmoid has apparently been favorable. These cases have seemed to do exceptionally well. The surgical reactions have been minimal and case for case much less than would appear to be expected for the given degree of pathology. Ethmoidectomies done during the less favorable months of the year, or when a somewhat more active inflammatory state than perfectly desirable prevailed, have been afebrile and amazingly comfortable from the first day on. Furthermore, almost invariably they have seemed to bleed less during the six hours following surgery than before.

Instead of impregnating gauze with the powder, as Kern does, our custom has been to blow it on to whatever area we desire with the powder blower. The drug is then in intimate contact with the entire bare area and remains there. Perhaps the gauze impregnated packing is better, and I shall be glad to try it; but it would seem reasonable to suppose that the drug would be much more readily available to the tissue when blown on to it, for here we have an uninterrupted carpet of the drug filling every surface irregularity, whereas with the packing there would be tissue contact with it only in very occasional and irregular fashion. This is particularly true when one folds the vaseline packing in quite loosely, as we do, with very little contact anywhere.

The use of the blower also allows one to avoid packing if he chooses. We usually find it unnecessary to use packing of any kind in nasal or sinus surgery, except a light pack for a submucous operation to prevent a hematoma, or to serve as a matrix for a clot if the patient shows more than the average tendency to bleed. We have no quarrel with those who prefer a light pack elsewhere, but simply feel it is usually unnecessary as the patient is much happier without it, and the results are at least as good. The powder has seemed helpful in postoperative exuberant granulations in the nose, hastening their disappearance and causing no reaction if the drug is limited to the granulation surface only.

Sulfanilamide powder was used in the first twenty cases, after which sodium sulfathiazole powder was substituted. It was thought that this drug might control a larger proportion of the prevailing micro-organisms found in this area. The results, however, were not noticeably different. There was one disadvantage in that the powder of the latter drug proved to have a somewhat flocculent character, and it was more difficult to maintain the patency of the powder blower. Since

* Presented before a meeting of the Methodist Hospital Staff on December 3, 1942.

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midsummer we have used sulfathiazole crystals which we further pulverized in a mortar. These particles remain more discrete, do not clump, as does the powder, and coat the raw surface evenly.

We realize that the above is concerned with clinical observations, in contradistinction to the research methods of the laboratory, but the results seem of such a definite nature as to justify and encourage further trial of these drugs in the fields suggested, as well as perhaps associated fields. The series is not large and, as is the case with any new drug or method, enthusiasm should be restrained until our observations have stood the test that time imposes. The use of these drugs should not make us feel privileged to take undue surgical risks with the hope that its use will cover up or mitigate any mistakes in judgment. But, whether or not it is justified, I cannot help sharing Kern's feeling of security when the undiluted sulfonamide drugs are used following nasal surgery.

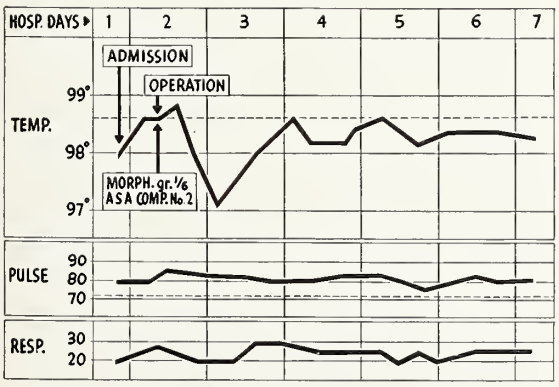
CASE REPORT

The last case of this series was operated upon five days ago. It is of interest because there was the greatest need for an extremely calm convalescence. Mrs. J. K., aged sixty-six, had been under treatment for six months because of retinal hemorrhages and headache—frontal and retrobulbar, and worse behind the right eye. Nasal stuffiness also was present, more marked on the right side. Treatment relieved the eye pain for a short time, and some improvement in the condition encouraged us to carry on conservatively until more retinal hemorrhages developed one month ago.

The causative relationship between the bilateral hyperplastic and suppurative ethmoid and sphenoid infection which she had and the ocular pathology was not clear. No other obvious systemic cause was presented. We felt justified, therefore, in offering to intervene surgically. It was not the type of case one chooses, however, and the prognosis was guarded.

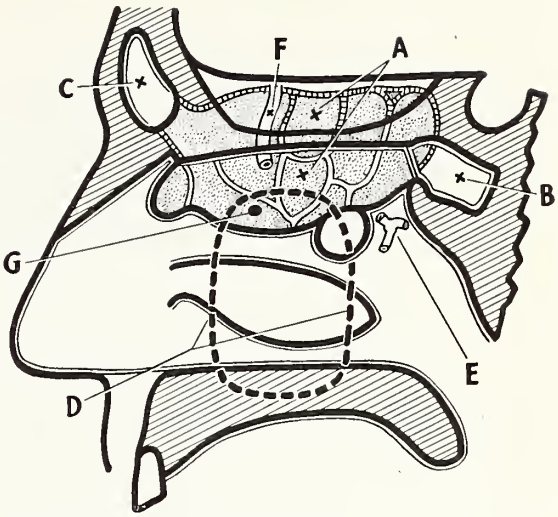
Under local anaesthesia submucous resection, bilateral ethmoidectomy and sphenoid windows were performed. This included removal of all the hyperplastic membrane of the region with the exception of that lining the sphenoids.

FIGURE I



Temperature chart on Mrs. J. K.

FIGURE II



A. Shaded area representing denuded bone remaining after ethmoidectomy.
B. Sphenoid Sinus.
C. Frontal Sinus.
D. Outline of antrum.
E. Posterior blood supply of nose.
F. Anterior blood supply of nose.
G. Ostium of antrum.

So far her postoperative course could not have been more smooth. Except for two A.S.A. compound tablets and morphine, gr. ⅙, given routinely on return from the surgery, she has had no pain medication whatever. The head pain which she had on admission to the hospital is gone—whether permanently we, of course, do not know. The temperature curve has remained flat and she feels as if she had undergone nothing more than a minor inconvenience. A stormy convalescence with acute inflammation on the raw surface could conceivably produce crippling ocular hemorrhages. It seems reasonable to us to conclude that the sulfathiazole crystals are in part responsible for this lack of reactionary inflammation.

N.B. (March 24, 1943.) Sixteen more cases have been added to this series, of which nine were bilateral and three were external. Our findings remain the same. Mrs. J. K., the details of whose case were given above, has remained entirely free of head pain or nasal symptoms except in mild form for a few days during a cold. The oculist reports absorption of all hemorrhage, except one small spot temporarily, and no new ones. Clinically, the patient is well. Not all of the cases have been so symptom free. Six have received sulfonamide preparations by mouth for small temperature rise during the first postoperative week, but these reactions are uncommon and transient and almost always follow chilling of the body surface or some indiscretion.

This is to be considered a preliminary report, as this study is still in progress. In some cases

I am using sulfadiazine powder instead of sulfathiazole. Instead of vaseline gauze packing, where packing is used, I am trying one impregnated with sulfathiazole ointment. It is hoped that a later report can be made.

Conclusions:

1. Sulfonamide powder and crystals were used on the raw postoperative surface in 128 ethmoidectomies on 99 patients.

2. The postoperative course has seemed to be influenced most favorably, with an apparent reduction in bleeding and reactionary inflammation.

3. As a result the author has a greater feeling of security in handling cases of this type.

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LAKE COUNTY'S FIVE-YEAR PLAN AND/OR LAKE COUNTY'S ALL-OUT MEDICAL PLAN *

ROLLEN WATERSON†

GARY

The title of this report, "Lake County's All-Out Medical Plan," was hastily and arbitrarily assigned to it by Tom Hendricks after his original and most undiplomatic selection of the title, "Lake County's Five-Year Plan." I say undiplomatic because we in Lake County are very sensitive about the fact that it has a large foreign population, and are especially sensitive to insidious remarks from the southern part of the state about our county being essentially foreign, the cradle of communism, et cetera. And now, according to Tom, we have a "Five-Year Plan."

For the information of out-of-state guests of the conference, there are those in southern Indiana who deny that we in Lake County are Hoosiers. Geographically, they say, Lake County is bounded on the north by Lake Michigan, on the west by Chicago, and on the east and south by Indiana. Gary, Hammond, Whiting, and East Chicago they describe as the industrial "spill-over" of Chicago into Indiana, the term "spill-over" being synonymous with "blot" or "blemish" upon the fair face of Indiana. Typical of the stories they tell, in southern Indiana, is that of an Indianapolis physician, visiting in Gary, who wandered about for half a day looking for the United States Embassy.

So when Tom wrote that the title of this report was to be "Lake County's Five-Year Plan," and when I responded with a threat to come in character, carrying a red flag — when I said I'd grow the whiskers usually found on the cartoonist's idea of a progenitor of a "five-year plan," but couldn't promise much in the way of the characteristically bristly hair, Tom suddenly—and without notice—decided that ours was an "all-out" and not a "five-year" plan.

Actually, southern Lake County is typical Hoosier farm country. Northern Lake County is highly industrial, and is just now doing an all-out job of producing steel, oil, tanks, machinery, and lots of good American tax dollars for an undeniably Hoosier state treasury. You'll remember our huge industrial section as being that part through which you used to hold your nose and get your shirt dirty as you drove to Chicago. Dr. Creighton Barker would undoubtedly describe it as the comfort station between South Bend and Chicago. However, Tom wasn't far from wrong, as he so well knows, in labeling a report of our progress a "Five-Year Plan," because it will have taken us five years to arrive at the end of the beginning of our plan. So, with or without Tom's permission, I'll substitute for his substitute title the title for which he substituted it, namely, "Lake County's Five-Year Plan."

We did have, and do have, a definite plan, which was outlined in the July, 1939, issue of the *Lake County Medical News*. I want to read part of it to you, for it states the foundation upon which we are building:

"THE APPLICATION OF A NEW CONCEPTION OF PUBLIC RELATIONS TO ORGANIZED MEDICINE

"It is apparent that the organized medical profession in general has belatedly but sensibly concluded that the public must be favorably disposed toward the private practice of medicine if it is to survive. New experiments in mass psychology, under various labels such as public education, molding public opinion and public relations, are reported almost every day. County, state, and national organizations have employed newspaper men, statisticians, lobbyists, advertising men, economists, publicity men, orators and others who are believed to be especially able to assist in the

* Presented before the Secretaries' Conference of the Indiana State Medical Association at Indianapolis, on January 24, 1943.

† Executive secretary of the Lake County Medical Society.

verbose veneering job usually expected when the objective is 'molding public opinion.' From the rostrum, over the radio, in the public press and through the widespread distribution of printed information, the defensive stand of the medical profession is being presented to the public.

"The local and national result of all this publicity cannot be predicted because it depends too much for its success upon a big distinction between mere hack-writing press agentry and the contemporarily developing science of public relations.

"It is essential, therefore, before we initiate our own program in the field of public relations, that members of the Lake County Medical Society recognize distinctions, pause for definition, and consider the influences that do move men's minds and hearts.

"According to a new concept, public relations is not the creation of a fancy package in which to sell an otherwise ordinary or inferior product. It is not a protective and ornamental fence built out of a publicity hound's catch-phrases, surrounding everything but changing nothing. It is rather a philosophy of management that considers everything relating to a busines in terms of the ultimate public good, and it demands and accomplishes changes that prove that the broad interests of the consumer are the first consideration of the business. Public relations, therefore, is not a separate department, not an art to be practiced independently and apart by an employed 'publicity man.' It is first the work in all departments toward the perfection of the product and, only when that has been accomplished, is it the going abroad to tell the public what has been done.

"In its public relations work, if it is to have any permanent value, the Lake County Medical Society must, therefore, first examine itself. The best relations abroad result only from the best relations at home. Only highly ethical physicians who limit themselves to work they are qualified to do can be permitted to practice with the approval that is conferred by membership in the society. The Society must be able to say that patients who enter hospitals in Lake County are assured that chronic bunglers and fee-minded surgeons who habitually do normal operations are not permitted to ply their trades. Economics must be considered, and medical care for all the people must be an accomplished fact. There must be no sickness and suffering in Lake County without adequate medical care. There must be complete harmony and a unity of purpose within the society, with every member considering everything medical with which he has contact in terms of the ultimate good of the public in general. The accomplishment of these things is as much a part of public relations as are the methods of telling of having done them.

"The work of public relations is the multipication of effective contacts, the forging of an endless chain of good impressions, and the complete extermination of elements within an organization that might result in bad impressions. Bad impressions are prolific and multiply of themselves. Good impressions must be added one at a time.

"Public relations, as applied to organized medicine with the problems it faced in 1939, consists first in seeing that an *honest* and *adequate* medical service is provided for *everyone*, and second, in informing all the people of that simple fact." That is the foundation upon which Lake County started to build its program.

And now, for the results, let's turn from 1939 to the January, 1943, issue of the *Medical News*, which contains my annual report to the membership of the society.

Under the heading of "Public Relations," the following is quoted:

"You have been remarkably patient and cooperative during nearly four years' preparation for a program in public relations, but you are now beginning to enjoy a few of the advantages made possible and assured to you by this carefully planned and executed project. Its importance to the society and to the public cannot be exaggerated.

"First, through the efforts of the council, the medical business offices, the hospital relations committees, the various hospitals and their staffs, the committees on indigent medical relief, our legal counsel, and almost every other committee and agency of the society, the *foundation* for good relations with the public was established.

"Abuses of indigent medical relief were eliminated and indigent patients returned to their family physicians. Fearless discipline and expulsion of unethical members, in spite of court action against the society and its officers, was recommended by the council and confirmed by the society. Unqualified and unethical physicians who applied for membership in the society were refused the approval conferred upon a physician by reason of his membership. Closer supervision of the medical and surgical work in our hospitals was imposed, and incompetent, careless or unethical physicians have been eliminated or their work placed under direct supervision. 'Medical Care for All the People,' the slogan of the medical business offices, became a reality, and we have broadcast the fact that no person in Lake County needs to be deprived of medical care just because he has no money to pay the physician. The medical credit situation has been vastly improved, so that honest, paying patients can no longer complain that they are overcharged because the doctor must, from economic necessity, ask them to pay for the work he does for medical deadbeats, who once made up as much as fifty per cent of the practice of many physicians. The society has taken its proper place in the work of public health, legislation, and politics that affect the public health, in the control of venereal disease and tuberculosis. We have assisted in school health programs and have a program in industrial health. We are about to be given a citation for the ex-

cellence of the civilian defense organizations set up by our members. And these are only a few of the accomplishments of the Lake County physicians.

"Thus, the society has prepared itself for good relations with the public. It cleaned its own house before it turned on the revealing searchlight of publicity. It has taken its proper place in the life of the community it serves, and its potentially great influence for good has been widely recognized and welcomed.

"The second step in our program preparatory to seeking improved public relations was to survey the public and to diagnose the public mind before treatment was instituted in order to learn what the public thinks of Lake County physicians and hospitals. This survey of public opinion was undertaken, under the supervision of the Committee on Public Relations, and complete results were tabulated in the May, 1942, issue of the *Medical News*.

"One-eighth of one per cent of the population of the county was interviewed. Those to be contacted were divided into different income groups according to the best advice available from those who have had successful experience with such polls. Among many other things, we learned that 33.1 per cent of our people believe the quality of medical care available in Lake County is just average or poor; 29.8 per cent go outside the county for medical attention; 41.7 per cent think the cost of surgical care is too high; 25.2 per cent said the cost of medical care is excessive, and 43.8 per cent are of the opinion that the cost of hospital care is too high. Thirty-one and seven-tenths per cent believe hospital service is just average or poor. Only 54.9 per cent believe medical care is available to those who cannot pay for it, but none could give specific instances of medical care being denied medically indigent persons. As usually defined by pseudo-social politicians, socialized medicine would be welcomed by 46.7 per cent of those interviewed, but 94.2 per cent opposed state medicine when informed of its implications. Ninety-four and five tenths per cent would insist upon the right to select their own physicians under any sort of plan for the distribution of medical care. Most of the public, according to the survey, had only a vague idea of the purposes for which the Lake County Medical Society exists.

"Armed with this information regarding public misinformation, and backed by a revised society that plans every project and examines every decision in the light of its ultimate benefit to the public health and the individual sick patient, we have recently entered upon the third and final phase of our public relations program—the approach to the public, the effect of which should be the consummation and the reward for this great effort.

"Now the actions of the society are being so shaped that they will capture the imagination, interest and approval of the public. For example, we recently told the public a great deal of what Lake County physicians actually are when, in honoring the memory of Dr. Thomas W. Oberlin, silver plaques were awarded to laymen who have given the greatest assistance to medical men and women in their endless conquest of disease. Front-page newspaper publicity on the presentation of these awards told the public more than the mere story of their presentation—more than the story of the fine service those so honored have given to their communities. This publicity told the public in the most graphic manner that the members of the Lake County Medical Society have an unselfish and sincere interest in the improvement of the public health, success in which not only carries no compensation for the physicians who promote it, but actually decreases their potential income by the prevention of the source of their income—disease and its treatment. Editorially, the *Hammond Times*, one of the award recipients, stated, "We are happy to have been accorded this recognition by the good doctors who have devoted their lives to the treatment and prevention of disease and are so much more deserving of praise." The editorialist goes on to say that the *Times* employed the services of a health columnist "for the same purposes that the doctors of Lake County are banded together. If we have in some small measure augmented their work of halting the ravages of disease through education and prevention, the *Hammond Times* feels it has, at least in part, justified the trust and confidence placed in its columns by more than 150,000 faithful readers." The *Hammond Times* has proved that it deserves this trust and confidence of its readers, and, in recognizing the very valuable contributions to the public health of the *Hammond Times*, which it fully deserves, the physicians of Lake County have advanced themselves in public approval.

"Another example of the work the society is doing to inform the public regarding the work of its members is the arrangement that has been made with the newspapers to submit to them information regarding your interesting and unusual cases in the hospitals, which was reported in detail in the October *Medical News*. Already a number of these newspaper stories have told the Lake County public that their own physicians encounter and are fully capable of handling successfully almost everything from safety pins lodged in baby's larynx to up-side-down stomachs. (By agreement with the press, the names of physicians are not used.) These stories are intended to convince the readers of the fact that they need not run to far away clinics for good medical care, as our survey revealed that many thought they must.

"Our regular radio programs on stations WIND and WJOB have been written so that they give more than health information—they tell their listeners something of the society that sponsors them, and of the work of the members of the society.

"Paid advertisements and many newspaper stories telling people how to conserve medical care during the war emergency, stories on the procurement and assignment of physicians, on society and hospital staff meetings, on our calls to stock the

Mercy Hospital blood bank, our work on indigent medical relief in cooperation with the trustees and the Department of Public Welfare, bulletins on public health, on venereal disease control, and hundreds of other subjects—all of this work from day to day is building good relations with the public, is rapidly placing Lake County physicians and the Lake County Medical Society in the position of prestige and public favor that must, and will, be attained if we are to realize fully our potentialities for the greatest health service to these communities.

"This, I believe, is the start of as successful a program in public relations, properly so called, as I have ever seen—and it has only just begun."

MEDICAL BUSINESS OFFICES

A gross collection of $100,487.37 for our members during the year 1942 is the amount at which we closed our books on December 31, 1942.

"Little comment is necessary concerning this accomplishment. A hundred thousand dollars speak more eloquently than anything I might say in praise of the work of the fine men and women who staff the society's offices in Hammond, East Chicago, and Gary.

"Nearly $30,000.00 was collected by the medical business offices for the widows and estates of deceased physicians and for members in the armed forces. It has long been an accepted fact that 'a doctor's accounts die with him,' and physicians who left their practices to serve in the last war have said that little was ever recovered on their accounts receivable. This condition no longer exists in Lake County, because the colleagues of deceased physicians and those in uniform have established agencies to correct these often tragic injustices. In this respect, the society's medical business offices have the same value as an insurance policy to the physician in private practice, as shown by the recovery during this year of nearly $30,000.00 for those who, to their patients but not to their colleagues, are 'Out of sight, out of mind.'

"Even those physicians who have few accounts to refer to the medical business offices for collection are realizing cash returns from them because of the education they are giving the slow-paying part of the public that medical bills can no longer be ignored. There can be no doubt that the medical business offices are improving the general medical credit condition of these cities.

"Collection methods of these offices deserve some comment. They do not operate as 'hard-boiled' collection agencies; they represent the physician as his business office. Every possible consideration is given patients who want to pay, but who through misfortune have been unable to do so. Equal consideration is given to those who have been negligent but make honest efforts to revise their paying habits. A surprisingly large number of patients return to the physicians who referred their past-due accounts to these offices for collection, and visitors to the offices are surprised at the friendly feeling toward our personnel exhibited by most of those from whom they are collecting. The attitude of the personnel of these offices is one of giving every assistance to people who will make any reasonable effort to be fair. Special treatment is reserved for the chronic 'dead-beat' who will pay only when forced to do so, but who comprises only a small part of the total.

PHYSICIAN'S BOOKKEEPER

"Just as the medical profession makes every attempt to reduce its source of income by teaching and practicing preventive medicine, so, also, the personnel of the medical business offices have made, and will continue to make, every effort to reduce the expense to the physician of delinquent accounts.

"The kind of prevention that works is good bookkeeping and regular billing of patients.

"Because we have learned that most delinquent accounts are the fault of the physician in not keeping good records and in not billing his patients regularly, the medical business offices have inaugurated a 'Physicians' Bookkeeper' service, which not only keeps your books, but also bills your patients, regularly.

"Members who have used the 'Physicians' Bookkeeper' during 1942 are, without exception, enthusiastic about its benefits, which they enumerate as follows: (1) greatly increased collection percentages; (2) better relationship with their patients, who want to know how much they owe, and appreciate a business-like economic relationship with their physician; (3) increased office efficiency, with figures readily available for computing taxes, net income, gross business, percentages of services rendered to collection, et cetera; (4) protection in the event of death from estate taxes on accounts receivable shown on the books, much of which could never be collected; (5) time saved for more practice or needed recreation.

OTHER SERVICES

"Ours is a service organization.

"One employee in each office is a notary public, who serves members without charge. Medical credit reports on more than 30,000 Lake County people are available, also without charge. We have a 1942 American Medical Directory. Patients who are unable to pay the full costs of medical care are investigated, the amount they are able to pay determinded, and the account handled on our 'Post-Payment Plan." Our stenographers mimeograph special diets, et cetera. Talks for lay audiences are written from material in our files. Used equipment is sold, or located and bought, through want-ads. in the *Medical News*. Blood donors are located. As many as fifty calls a day from members bring them information on subjects as varied as one can imagine: 'What are the marriage laws in Alabama?' 'Where can I get tetanus serum?' 'Why didn't I get a "C" card?' 'How can I get a Mongolian idiot into a state institution?' 'Give me the name of a pediatrician in Portland, Oregon,

who is a diplomate of the American Board.' 'I didn't get my narcotic license, what can I do?' 'My draft board classified me 1-A, what can I do about it?' If we don't have the answer we usually know where to get it, except, in Hammond, the question about a 'C' card.'

The report continues with details regarding our Procurement and Assignment Committee, which would be of little interest here, and continues with details regarding Civilian Defense, for which we are told we are to receive a citation from Washington.

Under the heading of "Other Activities," the following is reported:

"Other activities of the society and executive secretary include all of those countless details of organization and supervision necessary to the maintenance of a medical organization of more than two hundred fifty members engaged in almost every type of practice in these heterogeneous communities, contacting, influencing, and being influenced by almost every other organization and institution. Nineteen hundred forty-two saw the removal of the county's most dangerous fakes and quacks, this work having been prosecuted by the Indianapolis Better Business Bureau in close co-operation with the society. Few physicians have not had assistance regarding draft status, tire rationing, gas rationing, et cetera. Problems incident to the establishment of day nurseries for the children of mothers engaged in war work appear to be near solution. We secured and made appointments for the hundreds of volunteer donors required to stock the Mercy Hospital Blood Bank, which was established with the co-operation of the society. We have maintained our indigent medical relief gains, and have made every possible preparation for the protection of these gains under the new trustees who took office in 1943. The society has been represented by its executive secretary at many meetings of lay organizations which are concerned with health. A close co-operation has been maintained with hospitals and sanitoria, the tuberculosis association, the cancer control organization, the infantile paralysis foundation, superintendents of schools, the other health professions, the state association, Red Cross organization, the State Board of Health, the local health departments, selective service boards, industries, social welfare organizations—the list is endless. The executive secretary was "loaned" for a month to assist in the organization and promotion of the Hammond Victory Bond Breakfast Drive, which sold more than a half-million dollars in war bonds."

Our Lake County Venereal Disease Control Program, operated by the society with the cooperation of Dr. George Bowman's department of the State Board of Health, reports that there were less than five hundred luetics under treatment in Lake County early in 1939, but that since that time nine thousand cases have been placed under treatment, only two thousand of which were treated in public health clinics, and the balance in private practice.

The following are parenthetical remarks of the author:

"You'll notice that I am painting only the bright side of this picture. Strictly off the record, we've made some mistakes, too. But I can't bury my mistakes; they walk around as big as life, and haunt me. I don't know what you call them, but I call them *recalcitrant members*. That designation kind of shifts the blame for my mistakes onto them.

We have a very small percentage of recalcitrant members, because most physicians expect us to make a mistake or two, especially when we are trying to do so many things.

I haven't time today to tell about anything but successful accomplishments. If you want to know about our mistakes, get one of our few recalcitrant members on the program next year. He won't need much notice, and I'll promise you that he won't have to read his report., as I do, because recalcitrant members are the most eloquent of extemporaneous speakers.

Still off the record, as secretaries you may be interested in a lay secretary's evaluation of physicians: At least 95 per cent are the very finest people in the world—a true human nobility. Three per cent are just ordinary run-of-the-mill folks. As to the remaining 2 per cent—I find I'm getting away from my subject."

Most of you are familiar with our Lake County *Medical News* of which our Tenth District Counselor, Dr. Forster, is the able editor. You will understand that this twenty-eight- to thirty-six-page monthly publication is of the greatest importance to an organization such as ours, which divides its members among a number of cities.

You will be interested in a few details of the organization. The society as a whole meets once each month. Its officers are a president, president-elect, and a secretary-treasurer. Certain committees which deal with problems that affect the county as a whole are named by the president and are called "County Committees." These are the committees on scientific programs and postgraduate education, on tuberculosis, cancer control, the *Medical News*, the Venereal Disease Control Program, Finance, and the Blood Group Registry.

Below the county level the society is divided into four branch societies: the East Chicago-Whiting Branch; the Hammond Branch; the Gary Branch, and the South Branch. Each of these branches elect representatives to the council of the society, which is its "board of directors"—our "house of representatives." Each of the branch societies has its officers and meetings, and committees to handle problems in the community its members serve. These committees, of which there is one in each branch, include those on Indigent Medical Relief, the Medical Business Offices, Medical Economics Research (Health Insurance, Hospital Insurance, and related problems), Public Relations, Radio, Newspaper Relations, Speakers' Bureau, Exhibits, Public Health, Child Welfare, Disaster (Now Civilian Defense), Membership, Physicians' Welfare, Hospital Relations, Industrial Relations, Legislation, et cetera. Thus, we have a total of seventy-two active, working committees, three offices in three cities, thirteen full-time employes, and an occasional day's work to do to keep it all going,

properly integrated and coordinated, and functioning smoothly. Decisions of the various committees of the various branches, when approvad by their branches, become the rule of the branch when approved by the council, which must prevent the actions of one branch society from conflicting with the interests of another.

Now for credits: Who is responsible for all this? Dr. Shanklin, editor of your state JOURNAL and for many years secretary-treasurer of the society, conceived the idea of having a full-time executive secretary, made investigations, and dumped the problem, with his recommendations, into the laps of the members of a committee of eleven, which developed his ideas into a twenty-five-point program of things an executive secretary should do—which, by the way, I have never seen. If you are interested in how to sell your society on the idea of a full-time secretary, contact the chairman of this committee, Dr. Harry Howard, of Hammond.

During my infancy in this work, Dr. Shanklin bounced me around on his knee, and, with the assistance of Dr. Harry Brandman, who has been secretary-treasurer of the Society for the past four years, taught me to talk and walk. Both shielded me from the predatory designs of a few members who opposed the whole scheme at the outset, and would have liked to have seen me delivered stillborn into their medical family. A boost of thirty dollars a year in dues for my care and feeding wasn't universally popular until the youngster started paying a profit.

Credit goes to the two hundred fifty men and women—most of them the very finest people I have ever known—who are the members of the Lake County Medical Society; to Tom Hendricks, to whom I'll forever be in debt; to the various departments and councils and officers of the American Medical Association, who have made me think I owned their great establishment in Chicago, and who always go to no end of trouble to help; to Mac Cahal, in Chicago; Jim Kelley and Ralph Weber in Milwaukee; to Mr. and Mrs. Wells in Detroit, and to hundreds of others—but chiefly to Doctors Shanklin, Brandman, and the members of our council.

If ever you start one of these executive secretary things, don't get the idea that you need only hire him, wind him up, and then sit back and watch him run. First you have to train him, which is no small assignment. Then you'll spend the rest of your lives in committee meetings directing his efforts, knocking fool ideas out of his head, or getting sold on some of his ideas for the greater glory of organized medicine that take up a lot of your time. And you'll grumble that you used to spend all of this time in the enjoyment of golf or in the quiet contemplation of the rare and stimulating beauty of a royal flush, but you'll like it, as our Lake County members do.

ABSTRACT: LONGER LIFE JACKETS SUGGESTED TO PROTECT AGAINST DEPTH BOMBS

One of the new hazards of war is the blasts from depth bombs which explode when a sinking warship reaches the depth at which the bombs had been set to explode when used to attack submarines. Sailors escaping from the sinking ship frequently are either seriously injured or killed if they are in the water within several hundred feet of the exploding bomb. Longer life jackets that would cover the abdomen as well as the chest have been suggested as a possible protection against such blasts, *The Journal of the American Medical Association* for April 10 points out in an editorial outlining experimental studies of such blast injuries.

"The basic experiments of Hooker and of Zuckerman," *The Journal* says, "demonstrated that the effects on the body of explosions both in air and in water are primarily due to the externally applied pressure wave. [E. R. P.] Williams observed that pressures set up by an explosion at some depth in water create a new factor. When the pressure wave reaches the surface, transmission of the pulse to air does not occur but there is reflection as a wave of tension. . . . The human body, according to Williams, has roughly the same density as water. When the pressure wave impinges on the body reflection does not follow but the pulse will be transmitted through the tissues without displacement just as if the body were so much water. However, when the transmitted pulse encounters an air cavity in the body as, for example, the lungs, the static wave of pressure will change into a wave of kinetic energy in the layers of tissues lining that cavity and a disruptive effect will occur. Hence the lungs and other gas-filled cavities in the body are particularly susceptible to damage from the pressure wave even though the body itself may not be deeply immersed. . . ."

The Journal points out that G. R. Cameron, R. H. D. Short and C. P. G. Wakeley found in their investigations that kapok and foam rubber are best capable of preventing or minimizing the injurious effects of the compression wave in experimental animals.

In cases observed by M. T. Friedell and A. M. Ecklund at the hospital at Pearl Harbor it was felt that possibly the life jacket had prevented such severe injuries to the lungs as to cause death and that the abdomen, which was unprotected, bore the brunt of the explosion. This seemed to be borne out by experiments of the two men and leads to the suggestion that extension of the life jacket to cover the abdomen would be beneficial. They also could find no evidence in their experiments that, as has been reported by other investigators recently, water was forced into the intestines through the lower opening, with rupture of the bowel. The injuries found in the bowel seemed to them to be a direct effect of the explosive force transmitted through the elastic walls of the abdomen and chest. Neither did Friedell and Ecklund note hemorrhages into the brain in their experimental animals which died primarily as a result of a blast. They felt that a blast wave sufficiently forceful to produce injuries within the head would certainly cause fatal injuries within the chest or abdomen.

"The numerous reports now appearing in medical periodicals," *The Journal* concludes, "and the many unanswered questions that are being raised relative to the effects of blast on various systems in the human body indicate the need for further investigation, both clinical and experimental. The approach through special committees or subcommittees of the Office of Scientific Research and Development and the Division of Medical Sciences of the National Research Council, which has been so successful in other problems, might well be applied in the case of blast."

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MAY, 1943

Editorials

CONSERVATION OF VISION

In keeping with a custom of several years past, the May number of THE JOURNAL is devoted to Conservation of Vision. Each succeeding year this special number has met with an ever-increasing enthusiastic reception, and we believe that each year the number has increased in true worth and merit. The articles are written for general consumption, the main idea being to impress the "general man" with the importance of guarding against the things that cause visual disorders.

In these days of hurry and hustle, when the entire nation is on tiptoe doing its utmost in the furtherance of the war effort, eye injuries are more and more common. Our safety departments are put to it to prevent these injuries, but after they do occur it is up to members of the profession to remedy the damage with as little permanent defect as possible.

It is an interesting commentary that in every industrial program the eye comes in for a large share of discussion. Plant heads long since have learned the importance of conservation of vision, and huge sums of money are spent in that direction. Some thirty years ago a man who is now the directing head of the National Safety Council, then connected with a large steel foundry system, made the discovery that some 65 per cent of all injuries in these plants were eye injuries—then set about doing something to change the picture. It was he who first brought out the appliance now generally known as the "safety goggle," a little device that saves eyes and vision.

The average physician frequently has opportunity to conserve vision, even if it consists in nothing more than giving proper and timely advice to his patients. Should a patient complain of visual difficulties, the physician should, of course, refer that individual to an eye physician. (It is not likely that the same physician would refer a patient to a drugless practitioner!) Yet, we have too many physicians in Indiana, as well as elsewhere, who refer such cases to the optometrist. A poorly-seeing eye is usually a sick eye, and as such demands the best of attention.

We trust that every member will read all of the articles in this number; they are most carefully chosen, are well written, and constitute a worth-while addition to ophthalmology.

THE JOURNAL expresses deep appreciation to the authors of the papers published herein, and especially to the chairmen of the various committees who so carefully supervised the production—not forgetting Dr. Robert Masters to whom we have gone each year for aid in planning this special number.

MEDICAL FADS

Psychiatry has proved to be a valuable ally in attaining diagnoses hitherto obscure. But like most blessings it is beset with certain dangers. One outstanding danger is the temptation to neglect painstaking routine examinations which smack of drudgery. It is so convenient, and indeed often flattering to the examiner's acumen, to dispose of all symptoms by smugly proclaiming the patient to be a victim of unrealized behavior maladjustments.

One would expect such errors of omission to characterize the private practitioner, who is seldom checked up, rather than to be practised by outpatient departments of medical schools where check and counter-check prevail. But, to the writer's amazement, five consecutive patients referred to the outpatient department of a neighboring state medical school of high repute were returned to the referrer with voluminous reports on family maladjustments. All five have organic disorders that "stick out like sore thumbs." In one case, for instance, they admitted finding unilateral paralyses of the fifth and sixth cranial nerves in a patient who had had a biopsy upon a pharyngeal swelling and had had a series of x-ray treatments following. Two pages of their report were devoted to a "father-daughter complex," and not one word written as to etiology or treatment of the paralyzed nerves.

This might serve as amusing commentary upon the Achilles heel of even the great. But five families are rightly asking, "Is this medicine at its best?"

AN APPRECIATION

A letter from Colonel L. G. Rowntree, chief of the Medical Division of the Selective Service System, carries a note of deep appreciation of the efforts of several thousand medical men throughout the nation in furthering the work of the System. He stated that since so many medical men are now in the armed services, it would be impossible for local physicians to make the complete physical examinations of draftees; hence, the change in the plan whereby these examinations are now made at the Army camps by medical officers.

Colonel Rowntree states, "Selective Service is much impressed with the devotion and the patriotism of its examining physicians and dentists. As you no doubt know, these professional men in Selective Service are making the preliminary examination of registrants who are to be inducted into all branches of the military service. This represents a national service of great magnitude and importance."

Medical Circular No. 3 has been sent to all physicians and dentists now engaged in doing preliminary examinations and sets out the new Selective Service regulations and the list of manifestly disqualifying defects, deficiencies, disorders and diseases. This letter is most comprehensive and will, no doubt, meet with the fullest co-operation on the part of all examiners. The list of disqualifying diseases and defects is a long one, covering several pages in the bulletin.

In talking with physicians from several parts of the state regarding their participation in this work, we are impressed with the fact that most of them are really enthusiastic about the work. They sense the fact that they have become an integral and most important part of the war, and to have such an expression from Colonel Rowntree, at the direction of Major General Hershey, is most heartening.

Still there are many laymen who believe that physicians so engaged are being paid for this work; on more than one occasion we have heard someone say, "You doctors sure are reaping a harvest!"

It might be said that this is but another instance of "Hiding the light under the bushel." It is our firm opinion that we do not receive the deserved publicity; first and last, more than *forty thousand* physicians have given of their time and energy in this work without one cent of remuneration, not even a gasoline allowance. We believe it is high time that we do more talking about ourselves and by that we do not mean a letting down of the bars in the matter of personal exploitation; there is plenty of that as things are now. But we do believe Mr. John Q. Public should be advised of what the medical profession at large has done and is doing in the war effort.

MEDICAL ENLISTMENTS

For some time past Indiana has been little concerned with the problem of medical enlistments because of the fact that during the first such campaign we were well over our quota and had been asked to cease such efforts. In fact, the few medical men who tried to enlist were told that Indiana was ahead of her quota and that no further enlistments from this state were desired at that time.

We are now advised that the armed forces are in need of additional medical officers and that practically every state will be asked to furnish additional men. A recent editorial in *The Journal of the American Medical Association* brings this clearly to our attention. The editorial frankly states, "Evidence was clearly set forth that the procurement of medical officers for the armed forces is lagging." It was made plain that this was due to the failure of the younger physicians in our larger cities, particularly along the eastern seaboard, to enlist.

As has often been stated, the rural sections of the country have done more than their share in this regard, hence few enlistments are to be expected from these sources. It is estimated that six thousand additional physicians will be required to bring the medical department of the armed forces up to the standard set, this number in addition to the enlistments of recent graduates of our medical schools.

This is a big program, one that calls for the support of the entire medical profession. We, of course, have our state and local procurement committees, which groups have done a big job and done it well. No longer should we ask them to assume this new load, alone; we must pitch in and help. While, as has been said, the greater portion of these enlistments are expected from states that heretofore have not met their quotas, the other states will be called on for additional men.

We of Indiana find ourselves in a rather odd position; it is a well-known fact that few additional medical enlistments can be expected from most of our counties. In fact, these will have to come from about six counties, possibly five. These are Allen, Lake, Marion, St. Joseph, Vanderburgh and Vigo, the latter county not to be counted on for many additional enlistments. As we now view the problem, it means that our local committees in the larger counties will find it necessary to again go over the list of men at home, clearing as many of these as possible. Comparatively few of these men are under thirty-seven years of age, hence it is probable that the forty-five-year group will be asked to furnish additional enlistments.

No matter how the solution is worked out, Indiana will, as usual, come through. We never have failed to meet all requests coming from any of the war agencies — they are more than met; we usually give more than asked.

This is a personal problem — what will *you* do about it? We urge every Indiana physician un-

der the age of fifty to seriously consider this matter. Can *your* place be acceptably filled? We still believe that the *indispensable* man is a rare bird, indeed. Considerable readjustment of civilian medical care may be necessary ere we have completed the task before us, but we believe that when all is done Indiana Medicine will again be at the head of the heap.

WHOLESOME ADVICE

The medical division of the OCD makes some excellent suggestions regarding preparedness for any possible emergency, taking their text from a survey of the recent disaster, the Coconut Grove holocaust, in Boston. This survey is most complete, beginning with a discussion of the work of the city police department and offering some apparently justifiable criticisms. It is maintained that errors in the control of traffic in the vicinity of the disaster had much to do with delay in getting the victims to the hospitals; that the control of the distribution of the casualties was faulty; and that the Office of Civilian Defense was not immediately advised, but that shortwave calls were sent out for physicians instead. It is stated that not until the press called the office, some three-quarters of an hour later, did the office know about it, hence, the local chief was an hour late in arriving on the scene.

It seems that the hospitals were not immediately notified to prepare for a great number of injured patients, hence, the staffs had not been properly organized, causing considerable delay in extending proper services to these injured persons. Taxis and trucks were pressed into ambulance service, the well-planned arrangements previously made by the OCD for possible air raid emergencies seeming to have gone for naught, probably due to the inexcusable delay in notifying the office. Many of the hospitals knew nothing of the catastrophe until the injured were carried in. Thus, it was that there was an unequal distribution of patients, some hospitals having an overload and some comparatively few. None of these institutions had had sufficient advance notice to make proper preparations and to see that an adequate medical staff was at hand.

More might be said about the report of this major disaster, just the sort of disaster the local OCD groups throughout the nation have been planning for even though it may never come about. It teaches a mighty important lesson—that we must not only be prepared for *any* emergency but that our preparations must be complete, to the end that when disaster comes *all of our plans work.*

Pearl Harbor afforded a most notable example of this point, in the matter of blood plasma. Were it not for the foresight and the persistency of one physician in Honolulu, no one can say how many more lives might have been lost on that tragic day. To Hoosier-born Forrest Pinkerton goes this credit. In a conversation with Doctor Pinkerton some eighteen months before Pearl Harbor, he told us of his blood plasma plans and of the difficulties he was having. Too many folk said, "It Can't Happen Here!" But it did happen and, thanks to the foresight of Doctor Pinkerton, blood plasma was available. And within thirty-four hours, by dint of an all-day broadcast, volunteers by the thousands offered more and more blood.

And, *It Can Happen Here*, right here in Indiana. We may not be bombed and we may have no major disaster, but our local OCD groups throughout the state are planning and ever-planning to meet whatever may come along. But are these plans complete? Are they so carefully worked out that everyone connected with the program knows just where he is to go and what he is to do when he gets there? Are the police properly advised as to traffic control and such important matters?

In every OCD setup throughout the nation medical men play a most important part. It is their duty not only to attend the injured, but to assist in the planning of all programs and to supervise the carrying out of these programs. It is a big job, but not an unsurmountable one. It simply means the use of a lot of common sense; then seeing to it that this common sense is properly applied. It would be well for the medical members of local OCD organizations frequently to talk things over to be sure that the plan is feasible.

LETTERS FROM HOME

We are advised from time to time of letters from a county medical society to those of their members in the armed service; these epistles are much appreciated by the men away from their homes since they contain bits of intimate chatter about medical folk whom they really know.

Doctor Bruce Stocking, secretary of the Delaware-Blackford County Medical Society, seems to have gone into this idea in a big way; all physicians and nurses from that area are sent a news letter that started as a two-page affair, but now has grown to be quite a little volume. In it he quotes from letters received from the folk in service, plus gossipy news about those at home. Changes of address are given from time to time, thus enabling former buddies to maintain contact with one another.

Another favorable feature is that when these news-letters are mailed to THE JOURNAL, much material for our Military News columns will be available.

We are not presently advised as to how many of our societies are sending out these letters, but we would strongly urge all to do so. Even great big men, yes even doctors, occasionally have a bit of nostalgia, and a news-letter from their confreres is certain to be a most excellent tonic. Most local society secretaries have plenty to do these days in keeping up with the procession as lead by the

headquarters' staff, so it might be well to assign this pleasant little chore to some other member or members.

But don't appoint a "sour puss," by that we mean some dour-faced individual who never sees the humorous side of anything. Sign up a lively chap, one who gets about and knows what is going on in the local community. Give the service boys a real break — a real treat.

Editorial Notes

In a report issued as of March tenth, the Medical Division of the Office of Civilian Defense, Fifth Service Command, ranks the state of Indiana as highest in the number of blood donors. This area comprises the states of Indiana, Kentucky, Ohio and West Virginia. The Hoosier state is credited with a total of 4,476 donors in this report.

Add to the ever-increasing list of health organizations the National Health Advisory Council, a creation of the Chamber of Commerce of the United States. There are so many "health" organizations now existent and so many in prospect that one can but wonder just how much overlapping there will be when they all get going.

The LaPorte County physicians have adopted a new fee bill, with an increase in their fees for professional services. The new schedule is within reason and we can see no objection to physicians asking an increase in their remuneration for services. The cost of living has been generally hiked, including the cost of drugs and medical supplies. Most everyone else has had an increase in income, why not the doctors?

The Manpower Commission has sent every physician in the United States a brief form to be filled out, giving his age, professional classification, et cetera. Just what this all means is not definitely known to the average physician, but we hazard the opinion that it means the cataloguing of every medical man in the country. "Manpower" is getting to mean just that, it seems, and we are frank to say that we favor the program. It looks as though there is a lot of war left, and the sooner every individual in our country gets into some phase of the war program, just that much sooner will come the end.

The *Topeka* (Indiana) *Journal* says, "If we abandon the principle of free choice in the field of medicine, medical service will decline."

The American Public Health Association will conduct a three-day Wartime Public Health Conference in New York City, October 12, 13 and 14. The program will deal with wartime health emergencies as they affect public health and the public health profession.

An Indianapolis woman recently was convicted in the Marion County Criminal Court on the charge of having procured an abortion and was sentenced to serve three to ten years in the Indiana Woman's Prison. This is said to be the first conviction on this charge in the Marion County courts in a period of eleven years.

Some thirty members of the medical staff of the Indianapolis City Hospital were stricken with ptomaine poisoning recently, and for a time it seemed that the hospital officials would have to call physicians from the outside to take over for the time being, but all the afflicted doctors recovered in due time. Chicken salad was held responsible for the outbreak.

The death rate from pneumonia in Indiana presents an attractive study. From 1915 to 1941 there was an average of more than 2,000 deaths from this disease, annually. The peak year was 1918, when there were 5,640 such deaths, while in 1920 we had 4,150. With the advent of the sulfa drugs the picture has changed; in 1941 there were 1,776 pneumonia deaths, while in 1942 the figure was 1,763.

We are not certain as to our reaction to the proposed plan for the Army to take over the medical schools, as announced in the press of recent date. The plan announced would place all medical and dental students in uniform, place them on a monthly salary of fifty dollars, plus a per diem for their living expenses. While we thoroughly realize that the Army needs medical help and that they will have to look to the young graduates for most of the future Medical Corps enlistments, there are certain "dangers" in the proposed program. One outstanding objection will be the "unholy" scramble on the part of a large group of young men, to "get in while the gettin's good" regardless of their aptitude for medicine. And, it is not inconceivable that there would be a certain degree of politics in such a plan. We trust that matters will proceed cautiously and slowly in this regard.

Samuel Leibowitz, a pseudo-physician practising under the name of Doctor Liebo, is reported to be serving a 104 days' sentence in the Federal penitentiary at Terre Haute, having been convicted of illegal practice of medicine by the Federal Court at South Bend.

The United States Public Health Service announces that as a part of its anti-venereal disease program, more than thirty "Rapid Treatment Centers" will have been opened in various sections of the nation. It is expected that some fifteen thousand infected persons will be admitted to these centers.

About one and one-quarter billion dollars have been spent by the steel industry for new buildings and equipment since Hitler entered Austria. Added to this huge sum is the millions that the Federal government has appropriated for such purposes. The gross figures of steel production during the present war will make some interesting figures later on.

The *Muncie Press*, in concluding an editorial, "Should Doctors Be Politicians," makes this comment:

> "Socialized medicine would result in a vast expansion of Bureaucracy and, human nature being what it is, the doctors themselves would be forced to become politicians as a requisite of success."

For some years past we have been talking about Indiana and her tomato crop. This state is the largest producer of tomato products in the nation, one-seventh of the total production coming from the Hoosier state. But someone seems to have thrown a monkey wrench into the tomato machinery, that someone residing in the national capitol. According to columnist Maurice Early, of the *Indianapolis Star*, tomato packers are in more than a dilemma — they just do not know what it is all about, hence, they do not know what to do. The OPA sets a ceiling price on their product, then, almost in the same breath, increases the cost of the raw material some 26 per cent. Other restrictions — and they are many — are such that the packing plants are in a quandary. On top of all this comes the news that some forty per cent of the pack of tomato products are to be held for the Army, lend-lease and what have you. Just where the ordinary citizen comes in is another question. We trust that the tomato seeds now in the process of sprouting in the "flats" about the home premises will prosper and that the elements may deal kindly with our plants once they are set out.

Northwest Medicine directs attention to the fact that little or nothing has been done to educate residents of the West Coast as to what to do in case of a gas attack. Blackouts are so common out there that people long since have learned just what to do in such emergencies, but know nothing about gas attacks. It is pointed out that while so far in the present war there has been little gas used, it is quite possible that a desperate, last-resort campaign might involve the use of dangerous gases. The OCD already has sensed this and has inaugurated a comprehensive plan for the education of residents of our coast cities; programs are being organized in all such localities.

The Illinois State Medical Society will hold its annual meeting at the Palmer House, Chicago, May 18-20, and an invitation is extended to all members of the Indiana State Medical Association to attend these sessions. Your 1943 state association card will serve as the entreé to the entire program. Harold Camp, genial secretary of our sister society, makes this invitation personal and will see to it that all Indiana men presenting themselves at the registration desk will receive the "glad hand" in Chicago's best manner. The pre-session program announcement indicates that this part of the program will be of an unusually high order and the list of clinics at various Chicago hospitals should interest many of our Hoosier membership. The oration in medicine will be presented by James E. Paullin, M.D., president-elect of the American Medical Association, on May 18, and the oration in surgery will be given by Willis D. Gatch, M.D., dean of Indiana University School of Medicine, on May 19.

The following excerpt is taken from a statement issued by The American Social Hygiene Association; this as a part of their present campaign against the venereal diseases:

> "The Federal government has announced its intention of building the armed forces up to 10,800,000 men. If a venereal disease rate only one-half that of the first World War is achieved, about 378,000 of these men will acquire syphilis or gonorrhea each year. If the infected men lose on the average only one-half the time lost by first World War victims, the loss will total 7,560,000 man days per year. This figure is equivalent to 21,000 men out of service, and a burden to the medical facilities of the armed forces for one full year.
>
> "Where will these 378,000 men become infected? Everyone of them will be infected in civilian communities which allow prostitutes and promiscuous women and girls to spread disease to soldiers, sailors, marines, and coast guardsmen. It is perfectly possible to prevent a large part if this waste if civilian communities will use the scientific weapons—legal, medical, social, and educational—which are available."

In 1897 the death rate per ten thousand in four states was as follows:

	Massachusetts	Ohio	Michigan	Indiana
Typhoid fever	3.1	5.5	4.1	13.4
Consumption	21.2	20.4	19.4	20.0
Diphtheria	7.8	7.2	8.2	9.8
Scarlet fever	2.1	1.2	2.2	1.3

What strides have been made in matters pertaining to public health in the intervening years!

Since some misunderstanding exists as to how the Victory Tax applies to income received by physicians, and when such tax is due, a request for definite information on these two points was made to Will H. Smith, collector of Internal Revenue for the Indiana district. Mr. Smith has written the following letter, which makes it clear that Victory Tax upon income received by physicians from medical practice is not due until March 14, 1944:

"Reference is made to our telephone conversation of this date concerning the liability of doctors for the Victory Tax.

"The withholding provision of the Victory Tax applies only to wages, salaries, and remuneration received for services rendered by an employee. Independent contractors or other individuals who are not employees will file their Victory Tax return between January 1 and March 14, 1944. The withholding provision would not apply to their income."

The Pinellas County (St. Petersburg, Florida) Medical Society has passed the following resolution:

"1. That there is at the present time no actual shortage of physicians in this county.

2. That we are opposed to the licensing of or granting temporary permits to physicians who have not provided themselves with licenses through the regular channels provided by the laws of the State of Florida.

3. That we are squarely behind the State Board of Medical Examiners in their efforts to protect the interests of Florida licensed physicians, both at home and in the armed services.

4. That our senators and representatives be contacted and urged to oppose any attempt to break down or alter our system of medical licensure.

5. That a copy of these resolutions be sent to the president and all other officers of the Florida Medical Association, to each member of the Board of Governors, the Board of Past Presidents, the Committee on Legislation and Public Policy, the State Board of Medical Examiners, the secretary of every component county society, the editor of The Journal, the Governor of the State of Florida, the secretary of each state society in the United States and to every State Journal."

The Journal of the Michigan State Medical Society for March carries a note concerning refugee physicians that is of more than common interest:

"New York State has about six thousand refugee physicians practising under her laws, according to a personal communication from a member of the State Examining Board who is chairman of a committee studying their laws in an effort to develop more suitable requirements for licensure. He says many hundreds of these refugees have fraudulent medical diplomas, which during the war cannot be verified. Many of these men are not suited temperamentally or educationally to care for the American who is ill. They simply do not fit in. He advises not to relax our medical practice laws, even temporarily. We have a good provision for reciprocity, and a temporary license cannot be terminated."

This is sound advice and should be heeded by every state medical board. Sentimentalism should have no part in this refugee program; every individual should stand on his own merits. We cannot afford to open the gates for the entrance of such individuals. Indiana has reason to be proud of her medical laws in this regard.

The Indiana State Dental Association extends an invitation to all members of the Indiana State Medical Association to attend its annual session to be held in the Auditorium of the Claypool Hotel on May 17 to 19, 1943. The two lectures that will be of paramount interest to the medical profession will be the one on Monday evening, May 17, by Professor Tracey Strevey, chairman of the Department of History, Northwestern University, on "The Cultural Pattern of Our Enemies"; and the talk on Tuesday evening, May 18, by Dr. Harry A. Oberhelman, professor of Surgery, School of Medicine, Loyola University, Chicago. Dr. Oberhelman is successor to the renowned Dr. John B. Murphy, of Chicago. His subject is "The Treatment of Injuries in an All-Out War." The wounds as well as their causes in an all-out war are characterized by diversity, multiplicity and mutilation. No longer are only those in our armed forces in combat zones thus injured, but civilians, the aged, the invalids, the mothers and children as well. This situation places a heavy responsibility on the medical and dental professions and demands that we be familiar with the management of such injuries when they occur. Many of these injuries will constitute joint problems for doctors and dentists. Therefore, we are obligated to learn the many newer concepts of treatment of injuries now employed in the saving of lives of civilians and soldiers alike. We hope that many of our Indiana physicians will attend these lectures. The Indianapolis Medical Society has cancelled its Tuesday evening meeting in order that its members may hear Doctor Oberhelman's talk.

President's Page

OFFENSE IS THE BEST DEFENSE

In its fight against disease organized medicine has maintained one fundamental principle, that is, it has carried on the fight in an offensive effort. This is best understood when we survey the institutions which train medical students. An effort has been made to train students in a more thorough manner. This has been done, first, by raising the standards of the medical schools, and second, by raising the requirements for entrance to medical schools in the fundamental basic sciences, so that when a student has graduated he will be better equipped to practise medicine, to carry on research, and to teach medicine.

An army of medical men trained to this degree is a strong offensive front against disease. Of course, when disease attacks the public the medical man is first on the defensive, but it does not require much time for him to begin the offensive type of battle which emerges in so many victories. It will not be amiss to name some of the campaigns which have been won by this procedure. These are the battles against, (1) smallpox; (2) diptheria; (3) diabetes; (4) tuberculosis; (5) general and local septicemias by chemotherapy and surgery; (6) certain forms of meningitis; (7) malignancy; (8) acute exanthematous diseases; (9) pneumonia; (10) yellow fever; (11) malaria; and (12) syphilis. One could name many more fronts which have been captured by an offensive plan of action.

By applying the above principle to organized medicine, which is now suffering from a tremendous malignant condition, such as state medicine, socialized medicine, insurance medicine, or call it by whatever name you please, this plan of battle should be carried out. Are we to sit by and fight a defensive warfare, or are we to begin an offensive campaign to eradicate some of the efforts which are continuously irritating and prolonging the condition? It seems to me that in the past our status has been definitely a defensive program. We have waited until attacked instead of anticipating what was being done to destroy medicine as we have known it; therefore let us set our forces to work, destroying the attack before it gets a malignant grip upon the medical profession. By no means am I alone in this way of thinking. Many persons who are active in medical affairs feel the same way.

Inasmuch as our colleagues who are in the armed forces are waging an offensive battle against our enemies, let us begin an offensive campaign against the enemies who would destroy medicine as we have known it. Let us do this in order that we may be able to preserve the medical rights of those in the armed forces and to save our past and present method of practising medicine.

A RESUMÉ OF THE EYE TREATMENT PROGRAM AS SPONSORED BY THE INDIANA STATE DEPARTMENT OF PUBLIC WELFARE

JEAN R. KETTLER, A.B.
INDIANAPOLIS

When the Welfare Act became effective in Indiana in 1936, two sections were incorporated which authorized the offering of surgical and medical ophthalmic treatment to persons who were in need thereof, or to those whose resources would not enable them to finance such treatment independently. The Act provided identical eligibility requirements for either aged or blind assistance (with the exception that no visual qualification was included). The Act further stipulated that any treatment given under this program should be of a visual-restoration or blind-prevention nature and, as a result, all types of medical ocular treatment for the relief of pain or cosmetic conditions were excluded. An individual applying for eye treatment may seek this type of relief only, or may be an applicant or a recipient of either blind or aged assistance.

The program is financed entirely from state funds and is state administered, with local county departments of public welfare acting as agents for the state department in making investigations to determine eligibility aspects. In charge of the medical direction of the eye treatment program is the state supervising ophthalmologist. There is an able staff of 121 physicians, the large majority of whom are either ophthalmologists or those who limit their practice to diseases of the eye, ear, nose and throat. Their participations range from the conducting of ocular eligibility examinations only to that of ophthalmic surgery. The program has been accepted with enthusiasm by the physicians as well as by the recipients, and it has experienced steady growth until December 7, 1941. Since that time the department has lost 32 doctors to military service, and the program reflects this loss. At the present time there are 84 pending cases, some of whom have been assigned surgical dates and are awaiting hospitalization, while others are still unassigned because of the dearth of medical personnel.

As explained previously, eye treatment was incorporated as a part of the Welfare Act of 1936, but no actual eye treatment program was initiated until the early part of 1937. Since eye treatment did not constitute an emergency (as compared to individual economic needs), the county departments first concerned themselves with the completion of their investigations of individuals applying for monthly blind assistance. Since the beginning of the treatment program in January, 1937, eye treatment has been extended to 1269 individuals—710 men and 559 women. Although a complete review of each period of treatment (see Table I) shows a total of 1321 individuals under care, 57 of these individuals were recipients of more than one type of eye treatment, either of an ocular or general systemic nature. The table shows the number of individuals to whom treatment was given and completed by six-month periods.

TABLE I

Six-Month Periods	*Individuals*
January, 1937, through June, 1937	29
July, 1937, through December, 1937	31
January, 1938, through June, 1938	57
July, 1938, through December, 1938	46
January, 1939, through June, 1939	97
July, 1939, through December, 1939	179
January, 1940, through June, 1940	202
July, 1940, through December, 1940	180
January, 1941, through June, 1941	141
July, 1941, through December, 1941	129
January, 1942, through June, 1942	110
July, 1942, through December, 1942	82
January, 1943, through February, 1943	38
TOTAL	1,321

Eye treatment cases have been classified in the following manner: Intra-ocular surgery, including cataracts and glaucoma; extra-ocular surgery; medical treatment of the eyes; glasses and general systemic treatment.

CATARACTS

The percentage of cataract extractions among men is greater than among women. Thus far 668 persons have undergone surgery and coincidental hospitalization for cataract extractions. This number represents over 50 per cent of the individuals receiving eye treatment. Of this group of 668 cataract cases, most of the individuals fell into the age groups of 60 and under 70, and the second largest group was from 50 and under 60 years. However, during the last four six-month treatment periods there has been a decided increase in the number of applications for eye treatment in the age group of 70 and under 80.

As each doctor has completed service on a cataract case, he has been asked to report the final visual acuity obtained with correcting glasses. Statistics show that 73.9 per cent of the operations for cataract restored the vision of individuals from 20/20 to 20/70, while 11.1 per cent were restored to a vision of between 20/70 and 20/200 plus. In other words, the total percentage of individuals being restored to a vision of better than 20/200, which disqualifies them for blind assistance, totals 85 per cent.

The percentages of recoveries may seem low to the specialist who in his own practice records higher visual restoration for his private-patient group. However, it must be recognized that most of the people seen through the eye treatment pro-

gram are deprived people and their deprivation has unfavorably influenced their physical condition and consequent convalescence. It has not been uncommon to discover on preoperative examination a high blood sugar percentage on individuals who for years have had diabetic cataracts or diabetic retinitis, yet who had no previous knowledge that they were suffering from diabetes. It has not been uncommon, furthermore, to reject for eye surgery an individual who has a systolic blood pressure elevated to as much as 240 or a diastolic pressure of over 100, yet with no knowledge on the part of the individual that he had hypertension. Again these individuals seen through the program are all in need and this one factor may be symbolic of long periods of low-standard living with an inadequate nutritional standard, poor housing, inadequate medical care, et cetera. Up to the time of the inception of the eye-treatment program the majority of indigents were forced to seek medical aid through the township trustees and were frequently refused the type of care they applied for because their ocular condition did not constitute an emergency. Therefore, when they are first seen through the eye treatment program their physical condition may not only be poor, but their ocular condition so advanced, frequently with secondary complications, that the prognosis must be guarded.

Statistics collected by the program show that 15 per cent of the individuals operated for cataracts were not restored to a vision of better than 20/200. However, not all of these cases can be classified as failures, for in some instances the individuals were restored to a vision better than they had prior to the operation. The actual failure rate is about 8 per cent, and this includes death losses where the eye-treatment program was started but not completed.

As a result of successful cataract surgery since 1939, 100 persons who were recipients of blind assistance have been removed from the rolls. The average cost of each cataract operation to the state has been $179.00, and the average blind assistance award for the blind recipient in Indiana for February, 1943, was $28.27. Figured at the average grant of $28.27, on a yearly basis of $339.24, it would appear that considerable saving is involved where eye treatment, instead of assistance, can be offered to the individual. However, this would not be an accurate calculation because many individuals who are removed from blind assistance because of visual restoration are still economically dependent and must be taken care of through some other plan of relief.

GLAUCOMA

Considering the same periods of treatment, 36 individuals received surgical treatment for glaucoma. The number of patients treated for glaucoma is considerably less than the number treated for cataracts, although the incidence of glaucoma and cataract among blind-assistance recipients is nearly identical. However, there were many more glaucoma cases than there were candidates for glaucoma surgery, but these had gone so long without treatment that they were deemed beyond help. Most of the individuals receiving surgical treatment for glaucoma were in the age groups of 60 and under 70, and 50 and under 60 (identical with the age groups of those receiving surgery for cataracts), paralleling the age group of blind-assistance recipients now receiving assistance as the result of glaucoma. The percentage of surgical treatment for glaucoma was higher among women than among men.

The results submitted by physicians on completion of care of glaucomatous patients show that 18 individuals experienced improved vision following operations to relieve intra-ocular pressure. Vision of 11 individuals was stabilized, 2 experienced further visual loss following surgery, and the remaining 5 have not yet reported for postoperative examinations. Eight individuals received medical care for glaucoma, but these have been classified under medical treatment.

EXTRAOCULAR SURGERY

From January, 1937, through March, 1943, 90 persons were surgically treated for ocular disturbances which affected the area around the eyeball but not the globe itself. The most urgent extra-ocular surgical need was for the removal of pterygia, and this service was extended to 56 persons. The results evidently have been good, for no recurrences have been reported. Plastic operations on upper and lower eyelids were performed on 31 persons. In every instance these complicating ocular conditions were found in persons whose primary ocular infection was diagnosed as trachoma. The removal of an irritable eye was necessary in 9 cases; the best medical authorities advising it in order to protect against sympathetic involvement of the other eye. There also has been incidental treatment for ptosis correction, removal of lid tumors and infected lacrimal sacs.

TRACHOMA

In July, 1939, a program for the control of trachoma was initiated. Patients selected were treated by chemotherapy, embracing the use of sulfanilamide, sulfapyridine and neoprontosil. When surgery was indicated, it was performed prior to the beginning of the medical program. During the study 107 cases were treated with rather disappointing results, but with much gain in knowledge. Failures were anticipated because the individuals examined and treated were mostly in the age group of 60 and under 70 so that the ocular complications were of many years' standing and were advanced and permanent. Practically every case presented pannus, ectropion or entropion, heavy corneal scarring, et cetera. Since the experimental program ended, 56 younger people have been treated. The results have been much better and it is estimated that approximately 50 per cent

of these people have experienced visual gain. The average cost of treatment per patient by some form of chemotherapy was $17.46. Because of the limitations of the Act, we are able to offer eye treatment to females who are 18 years of age or males who are 21 years of age or older. The law so written restricts us from treating trachoma in its very early stages when it is remediable to treatment. The Indiana State Medical Association sponsored consideration of remedying this situation in 1941 and by the introduction of a bill in 1943, but no action was taken.

CONSULTATIVE EYE EXAMINATIONS

Consultative eye examinations have also been classified as part of the medical treatment program because these examinations were arranged to determine the need for further eye treatment. In 59 cases it has been the ophthalmic opinion that because of certain physical or ocular conditions present, surgical or medical treatment was not recommended. There have been many other consultative examinations where eye treatment has been recommended, and in these instances the cases have been classified under the type of service given.

GLASSES

Requests for eye treatment in the form of glasses have been very numerous. Our service is restricted to the following three classifications: (1) Following a corrective operation, such as cataract or glaucoma if recommended by the physician. (2) For individuals who are blind within the meaning of the definition or who have a visual reduction to 20/200 or below, but who with a corrective glass are improved to a vision of better than 20/200. (3) For individuals who have progressive types of eye conditions which may become worse without glasses. The majority of individuals applying for and receiving glasses were in the age group of 50 and under 60. Excluding the surgical cases, glasses were furnished 187 individuals, most of whose vision was reduced as the result of high refractive errors.

GENERAL SYSTEMIC TREATMENT

The foregoing paragraphs have dealt with treatment, either medical or surgical, entirely related to the eye. If an individual received treatment for diabetes or for high blood pressure to condition him for cataract surgery, he was classified as a cataract case and his treatment was considered as part of the preoperative treatment. However, under general systemic treatment only those cases have been included where the general systemic treatment without ocular treatment was administered in the hope of restoring eyesight or preventing visual loss. In this group have been cases of ocular tuberculosis, avitaminosis, high blood pressure and diabetes, but dental care, treatment for sinus conditions, and occasionally x-ray therapy have also been given. In some cases where the individuals applied for eye treatment and it was found that the greatest need was for general systemic care, referrals have been made to local community resources.

The eye treatment program in Indiana has attracted much attention outside the state. Frequent inquiries from other states request an evaluation of the program: Should it be included in their own Welfare Acts? Should it be introduced in their own State Legislatures? Does it work? The best answer to their inquiries would be to submit copies of appreciative letters from scores of recipients of eye treatment. While it is recognized that many individuals with restored vision are not rehabilitated otherwise, so far as self-support is concerned, if they are rehabilitated socially the program has fulfilled an important purpose.

ABSTRACT: CREATE A TERM DESCRIBING THE INJURIES PRODUCED BY UNDERWATER EXPLOSIONS

"Forces generated by underwater explosions incidental to marine disasters due to operations of war have produced physical injuries which we call the syndrome of 'hydraulic abdominal concussion,'" Lieutenant Commander Lionel S. Auster and Lieutenant Commander John H. Willard, Medical Corps, United States Naval Reserve, report in *The Journal of the American Medical Association* for March 27. The outstanding feature of this condition is the forceful compression of the abdomen simultaneous with the entrance of sea water into the bowel through the unprotected lower opening of the intestines.

The two men explain that "'Hydraulic' refers to the forces of water in motion. 'Concussion' is used in preference to the word 'compression' or any other descriptive word because we feel that the results of this unique accident are similar to those which occur in the brain or other tissues when subjected to sudden force against resistance. . . .

"The explosion [from a depth bomb] may give some manifestation in the air by blowing surface water up, but its chief effect is attained by the sudden commotion caused within a radius of several hundred yards. The surrounding water is set in motion in all directions, producing currents powerful enough to weaken the seams of steel-sheathed vessels within its zone of effectiveness. Men trapped aboard a sinking vessel or, more usually, those who have abandoned ship by going overboard clothed in life jackets and swimming free or clinging to life rafts or bits of floating wreckage are subject to the water pressures generated. If the man is within a radius of 100 yards of the exploding charge the chances of survival are very slim, although we have seen cases in which a distance of less than 100 yards was reported with eventual rescue. . . ."

The authors say that examinations of the abdomen of such victims have shown the chief injuries to be intestinal hemorrhages and in some instances perforations or rents in the large bowel. The mortality rate is very high. They say that their experience has shown that supportive treatment without operation produces the best results.

PIONEER PHYSICIANS AND SURGEONS OF MONTGOMERY COUNTY

GEORGE T. WILLIAMS, M.D.
CRAWFORDSVILLE

More than a hundred years ago the territory which is now Montgomery County, Indiana, so named in honor of General Richard Montgomery of Revolutionary fame, who was killed in the assault on Quebec, December 31, 1775, was a wilderness. Until 1821 no civilized being had gained a residence here.

According to well authenticated tradition, William Offield, with his wife and one child, came from a settlement on White River, not far from what is now the city of Martinsville, and settled near where Offield's Creek empties into Sugar Creek, building a cabin 12 x 15 feet. Through the efforts of the late Dumont Kennedy, a marker was erected on this site. There is every reason to believe that he and his wife were well educated for pioneers, as he was elected a member of the Board of County Commissioners for the year 1823 and 1824, and signatures appear on the records in a plain, smooth, business-like hand. The name of his wife, Jane Offield, is attached to a deed on the records of December 31, 1823, without the cross mark so often met with in those early days. So, she at least knew how to read and write, accomplishments by no means common to women of her day in the backwoods region of Indiana.

A second child was born to them while they were living in this cabin, and an old Indian squaw officiated as doctor on this occasion, there being no doctor or white woman nearer than thirty miles at the time. This was undoubtedly the first white child born in Montgomery County.

Our pioneer physicians of more than a hundred years ago toiled and endured the hardships of their day. Without complaint they trod the blazed paths on foot or on horseback, treating the diseases prevalent to pioneer life without the advantages of our present-day laboratories or instruments of precision, or even any formal training. They were the ones who made great discoveries that helped usher in the age of modern medical science. The modern physician with all his varied resources follows the trails these half-forgotten pioneers have blazed.

"We love best the man who dares to do—
The moral hero stalwart thro' and thro',
Who treads the untried paths, evades the rut;
Who braves the virgin forest, builds a hut,
Removes the tares encumbering the soil,
And founds an empire based on thought and toil."

FIRST PHYSICIANS IN AMERICA

The first English physician to land upon the American continent was Henry Kenton (1603).

The first physician, as distinguished from the chirurgeon, to come to this country was Dr. Walter Russell (1608).

Samuel Fuller (1580-1633), the doctor of the *Mayflower*, which landed at Plymouth Rock in 1620, was born and baptized at Redenhall Parish Church in Norfolk County, England, January 20, 1580. He was one of the signers of the compact. He died during the epidemic of smallpox in 1633 after he had helped others, and "had been a great help and comfort unto them; being a deacon in ye church, a man godly, and forward to doe good, being much missed after his death."

AMERICAN MEDICAL ASSOCIATION

The American Medical Association was organized in Philadelphia in 1847. The first President was Nathaniel Chapman of Pennsylvania.

INDIANA STATE MEDICAL ASSOCIATION

On June 6th, 1849, a convention was called in Indianapolis, Indiana, for the purpose of forming a state medical association. It was the Declaration of Independence for medical societies in Indiana.

At this meeting a committee of one from each district represented was appointed to nominate officers for the Association. One of the five appointed was Dr. Thomas W. Florer of Alamo, Montgomery County, Indiana. On the second day, June 7th, 1849, the committee on credentials reported favorably on the following from Montgomery County and they were admitted to membership:

Drs. Chester Ballard of Waveland; Thomas W. Fry, James Tichnor, Joseph Allen and Oliver P. Mahan of Crawfordsville; and George M. Huggins of Darlington.

You will note that Montgomery County was well represented at this convention and had an active part in its organization, which speaks well for the pioneer physicians of our county.

In a collection of pictures is a photograph of the four living charter members of the Indiana State Medical Association, taken at the Golden Jubilee at Indianapolis in 1899. They are: Drs. John N. Gaston, William H. Wishard, Sr., Patrick H. Jameson, of Indianapolis; and Thomas W. Florer, of Alamo, Montgomery County, Indiana.

MONTGOMERY COUNTY MEDICAL SOCIETY

The Montgomery County Medical Society was organized in the summer of 1872 in the small court room in the court house in Crawfordsville, Indiana. The charter members of the organization were: Drs. John Jay Sloan, James S. McClelland, Willis L. May, Walter L. Johnson, Samuel W. Purviance, Thomas J. Griffith and E. E. Barnett. Dr. John J. Sloan was chosen the first president of the society.

COAL CREEK TOWNSHIP

The first settlers came to Coal Creek Township in 1823. The first permanent physician was George Manners, M.D.; others were: Drs. Cornelius E. Phillips, L. E. Olin, J. H. Oxley, D. M. Washburn, D. R. Black, James W. Dickerson and Charles L. Van Cleave.

George Manners, M.D., was born in Mercer County, Kentucky, January 29, 1816. His parents came to Monroe County, Indiana, then to Putnam County and finally in 1830 to Clark Township, Montgomery County. He attended common school until he was eighteen; then attended Wabash College and Asbury University. When twenty-two years of age he began reading medicine, and in 1843 located in New Richmond. In 1845 and '46 he attended Louisville Medical College; and in 1846 and '47 Ohio Medical College. He graduated from Louisville Medical College at a later date. He was very successful in his profession. He died January 5, 1885.

Cornelius A. Phillips, M.D., was born in Adkin County, North Carolina, August 11, 1838. In 1847, he came to Crawfordsville with his parents. At the age of eighteen he began the study of medicine, reading in his spare moments. He attended a course of lectures at the Cincinnati Eclectic Institute. He was second assistant surgeon in the Civil War, sending wounded soldiers to hospitals in New Orleans, Philadelphia, Baltimore, Nashville and Louisville. He attended Jefferson Medical College in 1864. At the close of the war he came to Pleasant Hill and then moved to Waynetown where he was associated with Drs. Bass and Steele. He later returned to Pleasant Hill.

Leverett W. Olin, M.D., was born in Portage County, Ohio, February 12, 1851. He entered Buchtel College, Akron, Ohio, and began reading medicine with E. W. Price of Kent, Ohio, and was a student at the College of Physicians and Surgeons, New York City, where he graduated in 1880. After his graduation he located at Elmdale, Montgomery County, Indiana, where he did a large and successful practice until the time of his death in 1924.

D. M. Washburn, M.D., was born August 3, 1850. He began the study of medicine under Dr. J. S. McMurry of Linden. He attended the Indiana Medical College in 1873 and '74, and located at New Richmond in 1874. Date of death not known.

D. R. Black, M.D., was a graduate of the College of Physicians and Surgeons with the class of 1875. For many years he was a successful physician at New Richmond.

Charles L. Van Cleave, M.D., was born near New Market, Indiana, February 9, 1867, and died April 8, 1898, at Wingate, Indiana. He graduated from the Indiana Eclectic Medical College in 1890; located at New Market in the spring of 1890; and moved to Wingate in October, 1891, where he enjoyed an increasing business until the time of his death. He had a genial personality—the old type of gentleman.

J. W. Dickerson, M.D., was born in Hendricks County, Indiana, June 17, 1853. He graduated from the American Medical College of Cincinnati. From 1876 to 1881 he spent in the United States Army in the West; and took part in a number of campaigns against the Indians, who gave the government much trouble in those days. After leaving the Army he took up the practice of medicine in Rush County, Indiana. In 1894 he came to Wingate, Indiana, where he did a large and successful practice until the time of his death.

MADISON TOWNSHIP

The first settlers in Madison Township came in 1829. The first physician to locate in the township was Henry Keeney, M.D. He was followed by Drs. W. H. Keeney, E. P. Washburn, R. S. Miller, J. S. McMurry, J. W. Elliot and James O. Rhea.

Henry Keeney, M.D., came from Kentucky in 1829 and settled in Crawfordsville, Indiana, where he read medicine and began to practice in 1846. In 1848 he located in Linden.

W. H. Keeney, M.D., was born in Montgomery County, Indiana, and graduated from the Indiana Medical College with the honors of his class. He located in Linden with his father.

R. S. Miller, M.D., was born in Wisconsin in 1852. He received his literary education in Wabash College and Emporia, Kansas. He graduated from the Medical College of Indiana in 1877. He located in Linden in 1879, previously being in Crawfordsville, Indiana.

J. S. McMurry, M.D., came to Linden in 1870. He joined the Montgomery County Medical Society in 1874 and was an active member. Years later he moved to Frankfort, Indiana, and established a good practice, remaining there until his death.

John W. Elliot, M.D., graduated from the Medical College of Louisville with the class of 1897. He practiced in Linden about twenty-five years, dying in 1921.

James O. Rhea, M.D., was born in 1874 and died in 1938. He was one of the younger generation of physicians who served in World War I with the rank of major. He was a man of pleasing personality and enjoyed a good practice.

May 12 is National Hospital Day

GROSS INCOME TAX STATUS OF MILITARY PERSONNEL

The status of Indiana men in military service, pertaining to the State Gross Income Tax, is explained in a bulletin just issued by Gilbert K. Hewit, director of the Gross Income Tax Division. This bulletin, dealing with the amendment to the Gross Income Tax Act passed at the recent session of the legislature and signed by Governor Schricker on March 3, 1943, has to do with the exemption of members of the armed forces from payment of Gross Income Tax upon compensation received for Army and Navy service. James A. Emmert, state attorney general, has ruled as follows, under date of April 6, 1943, in regard to the newly enacted legislation:

1. Exemption applies to receipts which were actually received after the date mentioned in the Act to wit: December 31, 1941.

2. Only armed forces and women's auxiliaries exempted. This does not include Red cross, Y.M.C.A., or U. S. Public Health Service.

3. Refund is to be made of tax *paid* on receipts (from military service) received after December 31, 1941.

4. Refund is to be made only upon the application of the person to whom the refund is due. If representative of taxpayer, or executor or administrator, files application, proper Power of Attorney must accompany application for refund.

5. Taxes paid on income from non-military source are not to be refunded in case of death.

Requests for blanks upon which to file application for refund should be addressed directly to Gilbert K. Hewit, Director of Income Tax Division, 141 South Meridian Street, Indianapolis, Indiana.

PROCUREMENT AND ASSIGNMENT SERVICE BULLETINS

The following letters have been received by C. R. Bird, M.D., state chairman of the Procurement and Assignment Service for Indiana, from the Directing Board of the Procurement and Assignment Service, Office for Emergency Management, War Manpower Commission, Washington, D. C.

UNITED STATES PUBLIC HEALTH SERVICE AND OFFICE OF CIVILIAN DEFENSE AFFILIATED UNITS

There appears to have been some confusion regarding the reference to the attention of the state chairmen of the names of those physicians who are designated as a part of the joint program of the United States Public Health Service and Office of Civilian Defense. In order to clarify any such misunderstanding, the following resolution of the Directing Board of the Procurement and Assignment Service on the organization of United States Public Health Service—Office of the Civilian Defense affiliated units is presented herewith:

As a measure of protection for the civilian population in case of enemy action, the United States Public Health Service, in co-operation with the Medical Division, Office of Civilian Defense, has invited selected hospitals and medical schools to organize affiliated units of physicians in accordance with a specific table of organization. The physicians of these units are asked to accept reserve commissions in the United States Public Health Service on an inactive status with the understanding that they will be called to active duty only for the following purposes:

1. To provide medical care for civilians who must be moved out of their communities of residence because of enemy action.

2. To provide temporary medical care in extreme emergency for military personnel in extemporized hospitals in the area.

Affiliated units will be called to active duty only upon the recommendation of the respective state chiefs of Emergency Medical Service. In selecting units for activation, the state chiefs will call upon those physicians who can best be spared temporarily from their civilian practices. By virtue of this arrangement, civilian medical needs will be safeguarded against haphazard withdrawal of physicians in an emergency.

The Directing Board of Procurement and Assignment Service fully approves of the formation of affiliated units for the purposes outlined above and urges all state chairmen of the Procurement and Assignment Service to facilitate the organization of these units in every way possible. Applicants for United States Public Health Service reserve commissions for service in the affiliated units should not be cleared with the Procurement and Assignment Service because the terms of their commissions fully protect the civilian medical needs of the communities in which the units are being organized. It is understood that the United States Public Health Service will accept applications only from the following groups:

1. Physicians forty-five years of age or older.
2. Women physicians.
3. Physicians of any age who are physically disqualified for military duty.
4. Physicians already declared by Procurement and Assignment Service to be essential for civilian needs.

In the case of each physician under forty-five who is being considered for such a commission, and who is physically fit for military duty, it is understood that the United States Public Health Service will obtain, from the local Procurement and Assignment Service Chairman concerned, assurance that the physician has already been declared essential for civilian needs. The fact that reserve officers of the United States Public Health Service are now classified as 4-B by Selective Service does not affect the above arrangement since the Public Health Service has agreed that if such physicians holding inactive reserve commissions are subsequently declared by Procurement and Assignment Service to be available for military duty, they will be permitted to resign their commissions.

The executive officer of the Procurement and Assignment Service is hereby instructed to transmit this resolution to all state chairmen.

RECOMMENDATIONS OF THE DIRECTING BOARD OF PROCUREMENT AND ASSIGNMENT SERVICE RELATIVE TO THE ASSIGNMENT AND UTILIZATION OF INTERNS AND RESIDENTS FOR 1943-44

A. GENERAL

1. Medical manpower is sometimes wasted through duplication of activities in hospitals by the maintenance of two or more medical, surgical, or other services. For efficient utilization of attending physicians, residents, and interns, hospitals should consolidate such parallel services into one service.

2. For efficient utilization of medical manpower, hospitals should be requested also to arrange for re-absorption of clinics in sub-specialties into a general clinic of the parent specialty, and to maintain within the structure of the medical staff, in both inpatient and outpatient services, only such specialties as are recognized by the Advisory Board for Medical Specialties. (See page 1373, Educational number, *Journal of the American Medical Association*, August 15, 1942.)

B. INTERNSHIPS

1. A hospital shall not have more interns on July 15, 1943, than it had interns on duty July 15, 1940, unless it can be shown that the hospital's patient load has markedly increased or that other conditions exist that merit special consideration. Hospitals which have had a decrease in patient load since July 15, 1940, should make a corresponding decrease in interns.

2. In order to provide an adequate background for military medical service at the completion of one year of internship, hospitals which do not now maintain rotating internships should broaden and diversify the instruction and experience of their interns for the duration of the war.

3. The accelerated program in medical education creates overlapping of internships for about three-month periods, during which time certain hospitals may have more interns than necessary. The state chairmen of the Procurement and Assignment Service should be informed as to the number of interns the hospitals would be willing to release to other *approved* hospitals for this overlapping period, credit being given for such service toward the full year of internship. The state office of the Procurement and Assignment Service shall act as the clearing agency to arrange such exchanges of interns.

C. RESIDENTS

1. A physician who is eligible for military service should not be approved as an essential resident in a hospital, unless the residency concerned is approved by the appropriate accrediting body.

2. A physician who is eligible for military service should not be approved as an essential resident in a hospital for longer than one year immediately following the completion of his internship. Physicians who by age, sex, physical defect, or citizenship status are disqualified for military service may serve as residents in hospitals for periods varying from one to three years after internship. After this period of service, such physicians, if they are to be approved by the Procurement and Assignment Service as essential, must have been appointed as full-time members of the regular medical staff.

3. After July 1, 1943, the total number of residents permitted for the hospitals of the United States shall not exceed 50 per cent of the number of residents on duty in the hospitals on July 15, 1940; this 50 per cent shall include those residents who are not eligible for military service, e.g., women physicians, physically disqualified male physicians, older physicians, and alien physicians.

4. In view of the considerable number of physicians not qualified for military service who should be available for appointment as hospital residents, all hospitals should fill as nearly 100 per cent as possible of their allotted residencies with physicians not eligible for military service.

5. The total number of residents which a hospital may be permitted to retain shall be directly related to that hospital's teaching and service responsibilities, with particular reference to the proportion of its ward service to total service. Consideration of an individual resident should be based primarily on his teaching responsibilities and patient-service load, and not on any specialized service which he may render to individual members of the staff or to a particular hospital service. A hospital shall not be permitted to retain a greater percentage of the number of its residents it had on July 15, 1940, than the percentage of its ward patient days in relation to its total patient days, except that a hospital shall not retain more than two-thirds the number of the residents it had on July 15, 1940.

Ward service is defined as service to patients who are not charged nor paying a professional fee and who are available for teaching, if a teaching program is being conducted. In computing the service load the volume of outpatient visits shall be given due consideration.

Primary teaching hospitals, i.e., hospitals carrying major responsibility for undergraduate medical teaching, shall be given consideration for that service in addition to that which they receive on the basis of ward service. A hospital which has made radical changes in bed capacity or in its intern and residency plans or has lost an excessive proportion of its visiting staff since July 15, 1940, may receive special consideration in the number of residents it is permitted to retain.

6. The Central Office of the Procurement and Assignment Service shall determine the total number of residents to be allotted to each state, and shall suggest for the guidance of the respective state chairmen the number of residents recommended for each hospital after July 1, 1943.

7. Hospitals which find it necessary to request permission to retain, for a residency, an intern who holds a commission in military service, shall submit, in triplicate, such request to the state chairman for physicians of the Procurement and Assignment Service. *The state chairman shall add his endorsement approving or disapproving the request and forward two of the copies to the central office of Procurement and Assignment Service.*

8. As far as possible, physicians who hold reserve military commissions for whom requests for further deferment have been made shall be assigned to residencies which will provide training of greatest usefulness in their subsequent military service, e.g., in surgery or medicine rather than in obstetrics and gynecology.

9. In order to accomplish these objectives, all residents must be selected from the following groups:

1. Women physicians.
2. Male physicians who have been officially rejected for commissioned service with the Army or Navy.
3. Male physicians who have been classified 4-F by Selective Service.
4. Physicians who have applied for commission in the Medical Corps of the Army of the United States or the Naval Reserve and whose deferments are being requested for the ensuing year as outlined in paragraph seven in Section C above.

10. Hospitals should be instructed not to communicate with the Army or the Navy regarding deferment of reserve officers for further hospital service. Such communications should always be addressed to the state chairmen of the Procurement and Assignment Service.

An American soldier in England was giving some illustrations of the size of his country. "You can board a train in the state of Texas at dawn," he said impressively, "and twenty-four hours later you'll still be in Texas."

"Yes," said one of his English listeners, with feeling, "we've got trains like that here, too."

Military News

Annonncement has been made of the promotion of Dr. Charles F. Abell, of Marion, to the rank of captain. He has been stationed at Camp Shelby, Mississippi; Camp Carabelle, Florida, and is now serving at Camp Livingston, Louisiana.

Word has been received that Lieutenant Theodore D. Arlook, formerly of Elkhart, has been commended by the Army medical chief in Australia for his part in saving a soldier's life by an operation performed at the battle front in New Guinea. Doctor Arlook received his commission in August, 1941, and was assigned to the hospital at Fort Knox, Kentucky. Early in 1942 he was sent to Australia, and is now assigned to an evacuation hospital in New Guinea.

Word has been received of the promotion of Dr. A. G. Blazey, of Washington, to the rank of captain. He entered the United States Army on May ninth, 1942, and is now serving at Camp Grant, Illinois.

Lieutenant W. D. Buchanan, of Bremen, is in charge of the ear, nose, throat and x-ray departments of a Naval Reserve hospital in Northwest Africa. His present address is Navy 214, Fleet Postoffice, New York City.

Captain Clarence E. Bunge, formerly of Logansport, is now serving in North Africa with the United States Army Air Force. He is a squadron surgeon with a bombardment group.

Lieutenant Norman R. Carlson, of Michigan City, recently visited his home while on a short leave of absence, before going to Battle Creek, Michigan, where he is taking a special three-month course before returning to the Army Air Corps station hospital at Hill Field, Utah.

Promotion from the rank of lieutenant to captain has been given to Dr. William B. Challman, former Mount Vernon physician. Captain Challman reported for active service eleven months ago and is now located at the Station Hospital, Patterson Field, Fairfield, Ohio. Captain Challman spent three months in Texas taking the course in Aviation Medicine at Randolph and Kelley Fields.

Captain W. D. Close, formerly of Indianapolis, is serving overseas at an Army station hospital. His present address is 0-1684803, U. S. Army, A.P.O. 611, care Postmaster, New York City.

Lieutenant-Commander B. W. Cohen, formerly of Indianapolis, is now serving overseas as a United States Naval Medical Officer. He can be reached through Navy No. 136, Fleet Post Office, San Francisco, California.

Word has been received of the promotion of Dr. G. L. Derhammer, of Brookston, to the rank of major. Major Derhammer is serving somewhere in England.

Promotion from the rank of lieutenant-commander to commander in the United States Navy Medical Corps has been given to Dr. Arnold H. Duemling, former Fort Wayne physician.

We have recently heard from one of our members, Captain Richard E. Estlick, former Fort Wayne physician, whose present address is A.P.O. No. 3120, c/o Postmaster, Presque Isle, Maine. Captain Estlick is serving at a station hospital, but his present location is, of course, not known.

Dr. John K. Folck, formerly of Princeton, has been promoted to the rank of major. He is stationed with the Army Medical Corps at Needles, California.

Captain James W. Griffith, of Sheridan, who is now stationed at the Army Recruiting and Induction Station, at Spokane, Washington, recently wrote a letter to the Association headquarters, from which we quote as follows:

> "This is the only town of any size in the United States where I could be stationed where I would not know some of the M.D.'s. I did not happen to know a soul in this community.
>
> "Spokane is a very nice place, seems friendly, and is more like Indiana than many places where I might have been assigned."

Your friends back home send their regards to you, Captain Griffith.

A former Liberty Center physician, Captain Charles M. Gingerick, recently graduated from the Medical Field Service School at Carlisle Barracks, Pennsylvania.

Word has been received of the promotion of Dr. Oliver W. Greer, former director of the Children's Division of the Indiana Department of Public Welfare, to the rank of colonel. He is serving as a member of the headquarters' staff of an armored division at Camp Polk, Louisiana.

Dr. Clair Ingalls, formerly of Washington, recently landed in North Africa. He is a captain with an evacuation hospital.

Information has reached us to the effect that Dr. William M. Kendrick, Jr., formerly of Indianapolis, has been advanced to the rank of captain. He is stationed at Carlisle Barracks, Pennsylvania, where he is an instructor in the Department of Training at the Medical Field Service School.

Dr. Robert W. Kuhn, formerly of Indianapolis, has been promoted to a captain in the United States Medical Corps. Captain Kuhn is stationed in England.

Captain R. S. McElroy, former Princeton physician, has been promoted to a major. He has been on maneuvers in Louisiana and Texas for the past two months, following graduation from the Carlisle Barracks Field School of Medicine. Captain McElroy's brother, Dr. J. S. McElroy, of New Castle, was recently promoted to the rank of major and is serving overseas.

Lieutenant Wait R. Griswold, formerly of Indianapolis, was one of the medical officers on a cruiser that was sunk while convoying troops and supplies into Guadalcanal, and we quote from the *Indianapolis News* of March 13, as follows:

" 'The Japs make no effort, whatever, to save their lives or planes,' he said. 'In the first attack there were twenty-four enemy planes. Many of them could have gotten away, but they kept returning to machine gun the decks until all were downed. The following day thirteen planes attacked us in the same manner and only one got away. The same was true in the Coral Sea battle last May when thirty-seven planes were shot down, and in other engagements.' "

According to word received, Major John Lansford, former Redkey physician, is now stationed somewhere in New Guinea.

Dr. Charles L. Richardson, formerly of Rochester, is a captain in the Medical Corps of the United States Army and is now stationed at the Engineers Group Headquarters at Camp Shelby, Mississippi.

Captain James Robert Rohrer, formerly of Elnora, now a captain in the Medical Corps, recently made a ten-minute talk for the United States Army via shortwave broadcast from headquarters in Africa. He told of his experiences at the Tunisian front.

Major Merle Whitlock, formerly of Mishawaka, who was stationed at Billings General Hospital, is doing postgraduate work at the University of Pennsylvania.

Former Westville physician, Dr. Richard J. Sanderson, has been promoted to the rank of captain and is serving overseas with a bombardment squadron of the Army Air Corps.

Major Paul B. Stewart, who has been serving as medical inspector at Baer Field since August, 1942, has been transferred to a new station hospital in Oklahoma.

Major Clifford C. Taylor, formerly of Indianapolis, has explained that his present assignment is that of director of the X-ray Section, *Service School*, Medical Department, Brooke General Hospital, Fort Sam Houston, Texas, instead of director of the x-ray section of the hospital as reported by us in an earlier issue of THE JOURNAL. We wish to thank Captain Taylor for this correction.

Friends of Major M. M. McDowell, former Freelandville physician, will be interested in the following quotation from the *Washington* (Indiana) *Democrat* of March twelfth:

> "Readers of the *Indianapolis Star* this morning identified the picture of Major M. M. McDowell, appearing in Ripley's 'Believe-It-or-Not' cartoon. Ripley's caption was: 'There has been at least one son of the McDowell family who has been a doctor since the Middle Ages.' "

Major McDowell is now at Fort Sam Houston, Texas.

Captain Morris E. Thomas, of Indianapolis, is serving at a station hospital somewhere overseas. His address is A.P.O. 932, care Postmaster, San Francisco, California.

Dr. Charles C. Voorhis, who formerly practiced at Indianapolis, has been promoted to the rank of major. He has been serving with an evacuation hospital at Camp Carson, Colorado.

Former Brazil physician, Dr. O. L. Wood, has been promoted to a major. He has been transferred from Camp Oglethorpe, Georgia, to Camp McCain, Mississippi, where he will be stationed at the headquarters of an engineer's combat group.

In addition to the banquet given by the Indianapolis (Marion County) Medical Society, at the Indianapolis Athletic Club, in honor of its thirty members who recently left for Camp Bowie, Texas, we have learned of the following dinners given for members of this group who entered the armed forces: Major D. S. Megenhardt, of Indianapolis, was honored at a dinner in the Spink-Arms Hotel, given by more than sixty of Doctor and Mrs. Megenhardt's friends at the hotel. Dr. Carleton B. McCulloch read a poem written in Dr. Megenhardt's honor. Friends of Captain Howard Cogswell and Captain John Ferry, both of Whiting, gave a dinner in their honor—glowing tribute being paid the two physicians for their service to the community. Lieutenant Nicholas Topolgus was honored at a party given by his Bloomington friends. Dr. F. H. Austin read a poem which he had written in honor of Doctor Topolgus' departure.

The following letter has been received by one of our members from Lieutenant-Commander Paul H. Beard, former Indianapolis physician, who is with a naval advance base hospital and whose present address is Navy 212, Fleet Postoffice, San Francisco, California:

"I have often thought of the men at home and I know what a load all of you are carrying. I have no doubt whatsoever but that the medical profession will come through with flying colors.

"As you already know, I am unable to give you my exact location. The fellows at this hospital are doing good work and it is a fine experience to be a part of them. Our hospital setup is in a coconut grove and, fortunately, I have been able to steer clear of the falling coconuts. The temperature is about like summer weather at home, and it rains once in a while.

"I have heard from some of the fellows—it it a pleasure to hear what is going on at home.

"Say hello to everybody for me."

NEWS NOTES FROM GENERAL HOSPITAL No. 32, CAMP BOWIE, TEXAS

April 14, 1943.

This unit now has its full quota of medical officers on active duty, and is fast acquiring more nurses. We are on a rather accelerated training schedule, and the enlisted men are nearly through with their technical training program, many already being assigned to duty stations on the wards of the station hospital.

The basic training schedule mentioned includes much muscle limbering and toughening calisthenics, drill, and hiking, but in addition to this, we receive Army medical instruction in the form af lectures, training films, and demonstrations. One-half of the officers are now working on the wards at the station hospital, and the other half will take on medical and teaching jobs in another two weeks.

The men are carrying on with their professional activities, as evidenced by the addresses given by Major Fred Cheney at a seminar held weekly by the large hospital-group training center. His subject was "Epidemic Meningitis," based on his experiences at the station hospital. Major Hippensteel has also spoken before the Brown County Medical Society, at Brownwood.

Active in encouraging this sort of work by the men is Lieutenant-Colonel F. O. Alexander, our commanding officer, whom we have found to be quite an efficient and likeable person, with a number of years of previous experience in the Medical Corps.

A promotion has been accorded one of our members—Miss Willers, chief nurse. On April 9, Cy Clark, Jim Balch, and Jack Pilcher interrupted her duties in surgery at the station hospital to pin on her first lieutenant bars, to replace the gold ones.

In the line of social activities, it should be mentioned that there has been built up a regular colony of our officers and their families at Brownwood Lake, about twenty-five miles from camp. It is a delightful spot, and a number of the men are already gearing up for the fishing season which opens on May 1.

Innumerable amusing incidents have occurred in connection with our life here, but one of the best was a new command concocted on the spur of the moment by Jim Balch. While drilling a squad of officers one morning, he was suddenly confronted with the immediate necessity of preventing his men from marching into the side of one of the buildings. After hesitating an instant, at the last possible moment he suddenly shouted, "Circle the latrine, march!"

Both our early casualties, Charles Thompson and Fred Reynolds, are now well on the road to resuming full activity. No other casualties have been sustained except the minor muscular aches and blisters from our work-outs, and Rus Hippensteel's cactus scratches from being so much in the rough on the local golf course.

Cy Clark has not lost his annual opportunity to promote a full quota to attend the American College of Physicians' meeting in New Orleans, April 16-17. As usual, obtaining adequate hotel reservations has been no task for him at all. On the side, he has also been promoting a few activities at the Officers' Club.

CHARLES F. THOMPSON, M.D.

We are very grateful to Lieutenant Colonel Charles F. Thompson, formerly of Indianapolis, but now at Camp Bowie, for his report of the activities of the Indiana physicians now enrolled with Base Hospital No. 32. We were, indeed, pleased to hear from Colonel Thompson and are glad that he has promised to submit additional material from time to time. We hope that this will inspire other physicians now serving in the armed forces to contribute material which they think will be of interest to their fellow members. We would also like to have some photographs for use in the Military News section of the THE JOURNAL.

Lieutenant Irvin Caplin, who is with a field hospital in the Middle East, has written a very interesting letter to a friend concerning diseases encountered in desert warfare. We quote, in part, as follows:

"There are several interesting diseases and disease conditions coming to light on the desert. No doubt after this is all over, someone who has seen much more than I will write a book on diseases and injuries in desert warfare.

"There are three in particular. One is 'desert sores,' for want of a better name. This is a skin disease which in appearance resembles impetigo and ecthyma. However, bacteriological and biopsy examination give no clue as to etiology. These desert sores appear most commonly on the hands and wrists. They have run the whole gauntlet as to therapy. As the English say, 'They wear themselves out.' Nothing helps them.

"Another is old scars, especially those of the lower extremities. These break down and ulcerate on the desert. The basic therapy here is absolute bed rest. Of course, these men are no longer fit for desert warfare, and must either be transferred or discharged. Why these scars break down is not as yet known.

"The most interesting condition is wound infection with the Klebs-Löffler bacillus. These wounds differ in no way objectively from other wounds. The amazing thing is that they are often followed by systemic diphtheria. Here the antitoxin is of value. However, in a localized infection the antitoxin has proved useless. I know of no studies as to Schick sensitivity and vaccination in these individuals. I wish that we had the time and the facilities; it would, indeed, make an interesting study."

INDIANA PHYSICIANS IN MILITARY SERVICE

(This is a supplementary list covering physicians who have entered service since the original lists were published in July, September and November, 1942.—Editor's Note.)

Name and Home Address	*Station*
First Lt. Victor Albright, Indianapolis	
Harvey S. Allen, Angola	
Capt. Robert L. Amos, Newcastle	Camp Bowie, Texas
Harry B. Anderson, Indianapolis	
First Lt. Wendell C. Anderson, Rockville	Washington, D. C.
Cecil Andrews, Greenfield	
Robert P. Archer, West Terre Haute	
Lt. (s. g.) Ralph K. Arisman, South Bend	Opa Locka, Florida
Major James F. Balch, Indianapolis	Camp Bowie, Texas
Felix Ballenger, Indianapolis	Norfolk, Virginia
Lt. Crawford N. Baganz, Uniondale	Great Lakes, Illinois
Daniel C. Barrett, Bloomington	Kansas City, Missouri
Victor H. Bean, Marion	
Capt. Ebner Blatt, Indianapolis	Fort Knox, Ky.
Albert J. Bowen, Indianapolis	
John A. Bowers, Kokomo	
First Lt. Thomas A. Brady, Indianapolis	
Lt. (j. g.) Andrew M. Brenner, Winchester	Springfield, Missouri
Capt. George M. Brother, Indianapolis	Maxwell Field, Alabama
Major James S. Browning, Indianapolis	Camp Bowie, Texas
Lt. Richard G. Burman, Jeffersonville	Bethesda, Maryland
John B. Burrett, Indianapolis	
First Lt. Wm. J. Calvy, Indianapolis	
First Lt. Donald F. Casely, Indianapolis	Camp Bowie, Texas
Major Frederick D. Cheney, Indianapolis	Camp Bowie, Texas
First Lt. James F. Clancy, Hammond	Camp Barkley, Texas
Lt. Col. C. J. Clark, Indianapolis	Camp Bowie, Texas
First Lt. George Clowes, Indianapolis	Camp Bowie, Texas
Capt. Howard D. Cogswell, Whiting	Camp Bowie, Texas
Alfred J. Cole, West Lafayette	
Lt. Comdr. S. H. Crossland, Gary	Great Lakes, Illinois
First Lt. Marion M. Crum, Angola	Camp Barkley, Texas
Capt. Carl S. Culbertson, South Bend	Camp Bowie, Texas
Capt. Benjamin T. Daggy, Richmond	
First Lt. George D. Davis, Indianapolis	Camp Bowie, Texas
Major Robert M. Dearmin, Indianapolis	Chicopee Falls, Massachusetts
Captain Myers B. Deems, Huntington	Denver, Colorado
Rolland Deputy, Indianapolis	Camp Barkley, Texas
Fred Dick, Jr., Huntington	
Jack Dick, Huntington	Camp Shelby, Mississippi
First Lt. Paul G. Dintaman, Indianapolis	
Farrol A. Dragoo, Middletown	
Wallace K. Dyer, Evansville	
Capt. James E. Engeler, Indianapolis	Camp Bowie, Texas
A. R. Episcopo, Mitchell	Los Angeles, California
Ambrose Estes, Indianapolis	
Clyde W. Everett, Indianapolis	
First Lt. Alvin Evers, South Bend	Miami Beach, Florida
Robert M. Ferguson, Rising Sun	Kansas City, Missouri
Capt. John Ferry, Whiting	Camp Bowie, Texas
First Lt. Dallas Fickas, Evansville	Camp Bowie, Texas
Ray Firestein, Indianapolis	
Wm. J. Fitzgerald, Indianapolis	
N. C. Folkening, Acton	Staten Island, New York
Major Paul J. Fouts, Indianapolis	Camp Bowie, Texas
Herbert P. Friedman, Indianapolis	
First Lt. William D. Gambill, Indianapolis	Camp Bowie, Texas
Major J. Neill Garber, Indianapolis	Camp Bowie, Texas
First Lt. Martin D. Garfield, Hobart	Camp Butner, North Carolina
Lloyd H. Goad, Gary	
Capt. Floyd Grandstaff, Decatur	Miami Beach, Florida
Major George F. Green, South Bend	Riverside, California
Ted L. Grisell, Mitchell	
Maurice E. Gross, Ladoga	
Bernard R. Hall, Walton	
Emory D. Hamilton, Kendallville	
Lt. (j. g.) Lloyd E. Harris, Lafayette	Great Lakes, Illinois
Capt. John S. Hash, Indianapolis	Camp Bowie, Texas
Capt. John R. Haslem, Terre Haute	Camp Bowie, Texas
Nathan E. Headley, Indianapolis	

Name and Home Address	Station
Edward C. Helwig, Indianapolis	
Robert C. Heasty, Michigan City	
Lt. Comdr. Russell S. Henry, Indianapolis	Great Lakes, Illinois
Gordon T. Herrman, Indianapolis	
Major Russell R. Hippensteel, Indianapolis	Camp Bowie, Texas
Eldore M. Hoetzer, Indianapolis	
Arthur F. Hoffman, Fort Wayne	
Lt. Comdr. Wesley M. Hoppeurath, Elwood	
Eugene H. Hudson, Anderson	
Lt. Comdr. L. B. Hurt, Indianapolis	San Francisco, California
Major Charles F. Ingersoll, Indianapolis	Camp Bowie, Texas
Major Paul G. Iske, Indianapolis	Camp Bowie, Texas
Lt. Comdr. John K. Jackson, Aurora	Raleigh, North Carolina
First Lt. Stephen L. Johnson, Evansville	Camp Bowie, Texas
Capt. Thomas W. Johnson, Indianapolis	Camp Bowie, Texas
William N. Jones, Anderson	Huntington, West Virginia
First Lt. Paul A. Jones, Lyons	
Capt. Wendell C. Kelly, Washington	Camp Carson, Colorado
Richard L. Kennedy, West Lafayette	
Capt. Leo N. Kirch, Indianapolis	Camp Atterbury, Indiana
Paul Kisner, Terre Haute	
Lt. (j. g.) Charles H. Klamer, Indianapolis	
Kurt B. Klee, Indianapolis	
Robert W. Kuhn, Wilkinson	
Major Isadore J. Kwitny, Indianapolis	Camp Bowie, Texas
Capt. Wm. H. Lane, South Bend	Camp Bowie, Texas
First Lt. Joseph E. Lang, South Bend	
Major James M. Leffel, Indianapolis	Camp Bowie, Texas
Max R. Long, Indianapolis	
Capt. Paul L. Long, Anderson	
Lt. Frederick A. Loop, Lafayette	Mare Island, California
Major Harold F. Machlan, Indianapolis	New York
Major Charles L. Mahoney, Terre Haute	Camp Bowie, Texas
First Lt. Theodore Manse, Indianapolis	Camp Bowie, Texas
First Lt. Lee J. Maris, Attica	Camp Bowie, Texas
Millard Ray Marshall, Clinton	
Robert E. Medlar, Indianapolis	
Major Dennis S. Megenhardt, Indianapolis	Camp Bowie, Texas
First Lt. Harold B. Miles, Indianapolis	
Hugh A. Miller, Elkhart	
Lt. Comdr. Wm. E. Miller, South Bend	San Francisco, Calif.
Capt. Robert J. Millis, Crawfordsville	Camp Bowie, Texas
Joseph F. Montagnino, Logansport	
Donald F. Mueller, Fort Wayne	
Capt. Bernard M. Muleaby, Muncie	Bakersfield, California
John McBane, Fortville	
Capt. James M. McFadden, Fort Wayne	Washington, D. C.
John R. McNicholas, Indianapolis	
Charles McVaugh, Pendleton	
Capt. Leon Newman, Indianapolis	Louisiana
First Lt. Louis W. Nie, Huntington	Akron, Ohio
Herbert L. Nigg, Auburn	
Capt. Wm. H. Norman, Indianapolis	Camp Bowie, Texas
Capt. Robert W. Oliphant, Terre Haute	Camp Bowie, Texas
Albert L. Olsen, Marion	
W. Robert Orr, Mishawaka	Enid, Oklahoma
Lt. (j. g.) Richard K. Parrish, Decatur	
First Lt. Harold G. Petitjean, Haubstadt	Chicago, Illinois
First Lt. Valerian J. Picha, Muncie	
Major Jack Pilcher, Indianapolis	Camp Bowie, Texas
George Plain, South Bend	Camp Beale, California

Name and Home Address	Station
Capt. Maynard F. Poland, Indianapolis	
Julian Present, Evansville	
Major Harold D. Pyle, South Bend	Chicago, Illinois
Lt. George S. Rader, Indianapolis	
Robert C. Randolph, Indianapolis	
First Lt. Robert Rang, Washington	Camp Bowie, Texas
John T. Read, Indianapolis	
Joseph C. Reed, Rochester	
James R. Reeves, Indianapolis	
Lowell G. Redding, Huntington	Eglin Field, Florida
First Lt. James F. Reilly, Vincennes	Fort Harrison, Indiana
Capt. Frederick R. Reynolds, Indianapolis	Camp Bowie, Texas
Louis P. Ripley, Indianapolis	San Francisco, California
George W. Ritteman, Indianapolis	Fort Harrison, Indiana
First Lt. Howard H. Romack, Greenfield	Camp Bowie, Texas
Capt. Philip J. Roseubloom, Gary	Camp Campbell, Kentucky
First Lt. William B. Rossman, Indianapolis	Camp Bowie, Texas
Lt. Comdr. D. Hamilton Row, Indianapolis	Great Lakes, Illinois
William P. Runge, Richmond	
Robert M. Salassa, Indianapolis	
Lt. Comdr. Harry W. Salon, Fort Wayne	Chicago, Illinois
James C. Schornick, Wabash	
Sidney E. Seid, Terre Haute	
Thomas S. Shields, Brownstown	
Major Lacey L. Shuler, Indianapolis	Washington, D. C.
Capt. Otto L. Siewert, Logansport	Camp Bowie, Texas
Frederick H. Simmons, Goshen	
Gordon D. Skeoch, Anderson	
First Lt. John H. Smith, Bloomington	Camp Bowie, Texas
First Lt. Louis D. Smith, East Chicago	Wichita Falls, Texas
First Lt. Martlin P. Smith, Muncie	Australia
William B. Smith, Indianapolis	
Capt. Robert C. Speas, Bloomington	Camp Bowie, Texas
Harold E. Stadler, Indianapolis	
Major Brandt F. Steele, Indianapolis	Camp Bowie, Texas
Gilbert C. Struble, Indianapolis	
Julius F. Sue, East Chicago	
Charles E. Test, Indianapolis	
Benet W. Thayer, North Vernon	
Lt. Col. Charles F. Thompson, Indianapolis	Camp Bowie, Texas
First Lt. James N. Topolgus, Bloomington	Camp Bowie, Texas
Colonel Perry C. Traver, South Bend	Carlisle Barracks, Pa.
Julius C. Travis, Indianapolis	
Richard J. Trockman, Evansville	
Rex P. Uncapher, Knox	
Charles C. Voorhis, Indianapolis	
Capt. Homer W. Wales, Indianapolis	
James S. Walker, Indianapolis	
Major Hawthorne C. Wallace, Crawfordsville	Camp Breckenridge, Kentucky
Thomas P. Walsh, Garrett	Bryan, Texas
Capt. Joseph E. Walther, Rushville	
First Lt. William J. Warn, Milan	
Arthur F. Warren, Rising Sun	
Carroll B. Warren, Marshall	
Charles E. Webb, Sullivan	
Major Clayton G. Weigand, Indianapolis	Washington, D. C.
Ira C. Whitehead, Terre Haute	
William F. Willien, Indianapolis	
Capt. Don W. Wood, Indianapolis	Camp Bowie, Texas
First Lt. Claude C. Young, Evansville	San Antonio, Texas
Capt. John M. Young, Indianapolis	Miami Beach, Florida

They *give* their time and service.
You *lend* your money.
Sacrifice and save—Victory is worth it.
Buy United States War Bonds.

WHAT WENT ON DURING WORLD WAR I

(Items from THE JOURNAL of May, 1918)

Dr. John N. Hurty, secretary of the Indiana State Board of Health, held first place honors in the scientific section, with his annual report which was to be published soon in the board Year Book. This is a most interesting communication, particularly to those of us who knew Doctor Hurty. The report is typically Hurty*esque* in all its phases.

* * *

Dr. George W. McCaskey, Fort Wayne, presented a discussion of the "Diagnosis of Heart Disease." After twenty-five years we find much meat in the paper, many of his ideas being generally accepted today.

* * *

"The Use of the Army Litter" was graphically described by Dr. George B. Kent, of the Army Medical Corps; the article was well illustrated.

* * *

Editorially, there was much comment on the medical section of the National Council of Defense; in fact, the entire editorial section was given over to this discussion.

* * *

The town of Burket, Kosciusko County, was advertising for a physician to replace the doctor who had left for the armed service.

* * *

One populous Indiana county, as of May first, had but one medical man in service, but at the special meeting of May seventh practically every physician in the county had offered his services.

* * *

Baseball equipment for two teams had been sent to Lilly Base Hospital No. 32, in France.

* * *

Postage rates were to be increased and papers and magazines to be cut down in size. These, along with increased wages, et cetera, promised some tough going for publishers.

* * *

Seems that a few medical officers were somewhat piqued by the requirement that they submit themselves to military discipline — the editor opined that a bit of discipline was good for these chaps.

* * *

While many charges had been leveled against various governmental units in wartime, not a single instance had come to light in which the Army Medical Corps was blamed for something or other.

* * *

Lieutenant Toney E. Hunter, of Versailles, was the first Indiana medical officer to give his life while in military service, he having succumbed to an attack of pneumonia while located at Camp Shelby, Hattiesburg, Mississippi.

A training station had been opened in Gary, under the direction of Dr. R. O. Ostrowski, of Hammond, for the training of Polish young women for service with the Polish army in France.

* * *

The new tuberculosis hospital at Fort Wayne was to be named the Irene Byron Anti-Tuberculosis Hospital, in honor of Miss Byron who had recently died in a southern training camp while serving as a Red Cross nurse.

* * *

The staff of the Union Hospital, Terre Haute, had purchased Liberty Bonds in the sum of sixty-five thousand dollars.

* * *

Captain John R. Newcomb, Indianapolis, had left for Washington to take on temporary duty in the office of Surgeon General Gorgas.

* * *

The two physicians in the small town of LaCrosse, Laporte County, had both enlisted in the service. When the local situation was properly explained to the State Council of Defense, one of the physicians was released from service and sent back to his home community.

* * *

As a war measure practically every medical school in the country had decided to continue their sessions through the summer months.

* * *

The Lydston vs. The American Medical Association imbroglio had come to an end, Doctor Lydston having lost the decision in the Supreme Court of Illinois. This squabble, a long one, attracted much attention among medical men.

* * *

A sharp drive was being inaugurated in Indiana, seeking to increase the number of medical enlistments (at this date Indiana stood forty-second in the list of states in this regard). On May seventh, Lusitania Day, more than fifty county medical societies held special enlistment meetings. Members of the Council of Defense, and others, were assigned to the various meetings. The campaign was highly successful.

* * *

Conscription of medical men was more than threatened by the Army and Navy; the *must* orders had been issued and it was made clear that *must* meant just that.

* * *

Government control of railroads had seemingly not worked out so well as had been anticipated.

UNDER THE CAPITOL DOME

BOARD REVOKES LICENSE

The Indiana State Board of Medical Registration and Examination revoked the license of Dr. Douglas W. Owen, formerly of South Bend, at a meeting March 23. Dr. Owen was cited by the board four years ago for alleged violation of the narcotics law, but action was deferred. For the past two years he has been practising in Idaho.

LICENSES GRANTED

The Indiana State Board of Medical Registration and Examination has announced that certificates of license have been granted to 111 candidates who took the examination January 13, 14, and 15, in the Claypool Hotel. Thirty of the 111 were on the honor roll, which means that they passed with grades of 90 per cent or over.

One of those passing the examination was Jonas S. Naujokaitis, who was graduated from the Lithuania School and repeated his senior year at the Indiana University School of Medicine, to comply with the Indiana law.

Bernard A. Mason, also a successful candidate, was the first to take the examination under a ruling of the board which makes graduates of Canadian schools eligible without repetition of their senior year in an American medical school. The regulation was adopted by the board last January 12.

Graduates of the Indiana University School of Medicine who passed and were granted licenses are as follows:

Nevin E. Aiken, James W. Asher, Warren P. Ball, Robert J. Ballard, Robert F. Barton, Evart M. Beck, Jack C. Blackstone, Irwin Bleiweiss, Charles T. Botkin, Carlos B. Brewer, Dan Bright, Jr., Thomas M. Brown, Kathryn E. Campbell, Harry F. Carpentier, John E. Caton, Joseph H. Clark, William A. Clunie, Vactor Connell, Norman R. Cook, Herbert L. Cormican, Robert A. Cornell, Alexander F. Craig, James H. Crawford, John A. Crawford, William D. Dannacher, Bernard Davidson, Melvin H. Denny, Paul A. Des Jean, William L. Donham, Richard B. Dunham, Max M. Earl, Gail Eldridge, Jr., Robert W. Emmons, James C. Farr, Ralph E. Faucett, Henry L. Feffer, William B. Ferguson, Oscar A. Fodor, Carl A. Freed, Everett W. Gaunt, William J. Gerding, J. David Goldman, Wayne E. Grodrian, Donald R. Hampshire, Byron N. Harrison, Robert E. Hayes, Harley B. Hiestand, Gilbert J. Himebaugh, James R. S. Himebaugh, Jerome E. Holman, Jr., J. Guy Hoover, William N. Horst, Robert Horton, Ernest A. Iaconetti, Roger C. Isenhour, Albin A. Jankowitz, Jim S. Jewett, Thomas James, Jr., Edward C. Kattany, William M. Kelly, Charles E. Kime, R. Vernon Kinzie, Herschel S. Kopp, Ward Laramore, Jack M. Lockhart, James Z. Logan, Richard McDonald, Fletcher W. McDowell, John J. Marlowe, Robert M. Maurer, Henry P. Miller, William J. Millikan, Sherman A. Minton, Jr., Anthony C. Nolke, Jack W. Patterson, William K. Patterson, James O. Price, Wendell A. Prough, Harold E. Rendel, Alton H. Ridgway, Stuart W. Rose, Robert L. Rouen, Robert L. Salb, Cleon M. Schauwecker, Robert A. Schumaker, Hiram T. Sexson, Tom G. Sheller, Gloster J. Smith, George W. Smith, Fae H. Spurlock, George E. Stauffer, Jean T. Stoops, Robert E. Switzer, Joseph P. Szokolay, David L. Tennant, Edgar A. Thompson, Allen H. Twyman, C. Powell Van Meter, Robert W. Vermilya, Lawrence J. Vogel, Robert C. Weber, Rex K. Whiteman, James W. Young and Joseph B. Davis.

Successful candidates who were graduates of schools outside the state were:

Luther A. Gilliom, Bernard A. Mason, Joseph R. Modjeski, Jonas S. Naujokaitis, Keith R. Ruddell, V. Brown Scott, and Robert Carl Steck.

News Notes

Announcement has been made of the appointment of Dr. William D. Asbury as part-time physician in charge of the Rose Dispensary, of Terre Haute.

Dr. W. P. Alexander, of Gary, was honored by the Gary Odd Fellow organization on March thirtieth because of his fifty years of membership.

Dr. Margaret Ann Bassett, of Thorntown, and Dr. Robert Ferris, of Dayton, Ohio, interns at the Indiana University Medical Center, have been assigned to the Health Service Department of Indiana University, at Bloomington, due to the fact that three physicians of the health service were inducted into the armed forces.

Dr. Joel T. Carney, former Batesville physician, has moved to Jeffersonville where he will continue his practice.

Dr. James A Craig, of Greenwood, recently celebrated his forty-eighth year of practice during which time he has delivered 1,600 babies.

Dr. John A. Davis, of Flat Rock, has been appointed president of the Shelby County Tuberculosis Association.

Dr. Robert E. Glaser, who served in the Medical Corps at Springfield, Missouri, has been honorably retired from active service following an accident while in training and has resumed his practice of medicine at Brookville.

Dr. R. L. Kleindorfer, who was an instructor at the Army camp at Springfield, Missouri, has been retired from service and will resume his practice at Evansville about June first.

Dr. Clarence F. Kercheval, formerly of Wolcottville, has moved to Warsaw where he has opened an office.

Information has reached us to the effect that Dr. E. B. Mumford, of Indianapolis, has been chosen president-elect of The American Academy of Orthopedic Surgeons.

Dr. Thomas B. Noble, Sr., of Indianapolis, has completed his fiftieth year as a surgeon and physician.

Lawrence W. Nehil has opened an office at 709 Hume-Mansur Building, Indianapolis. He will specialize in thoracic surgery, bronchoscopy and esophagoscopy.

Dr. Alfred J. Neidermayer, of Evansville, and Miss Violette Capello, of Elizabeth, New Jersey, were married on February twenty-eighth. They reside in Evansville, where Dr. Neidermayer is on the staff of the Welborn-Walker Hospital.

COURSE IN ELECTROCARDIOGRAPHY

The Michael Reese Hospital, Chicago, Illinois, offers a two weeks' intensive course in electrocardiography, beginning August 16-28, inclusive, 1943. Dr. Louis N. Katz, director of Cardiovascular Research at the Michael Reese Hospital, will be in charge of the course. For further information, write directly to the hospital.

Dr. Henry F. Beckman, of Indianapolis, has been honored by having the new forty-bed obstetric ward of the Indianapolis City Hospital named "The Beckman Ward." Dedicatory ceremonies were recently held at which Dr. Charles W. Myers, superintendent of the City Hospital, unveiled a bronze plaque, dedicating the ward to Doctor Beckman, who has been in charge of the City Hospital obstetric clinic for the past thirty years.

INDIANA UNIVERSITY NEWS NOTES

Selection of 128 students for admission to the Indiana University School of Medicine in September, the third war class to accelerate training to meet the needs of the armed forces, has been announced by Dean W. D. Gatch.

The 128 members of the class, who will begin their medical training in September, were chosen from among approximately 1,000 applicants and, it was said by Dean Gatch, represent the limits of the medical school's training facilities. Under Army and Navy direction members of the class will continue their medical courses without interruption, graduating in two and two-third years instead of the traditional four years. Under present Army and Navy plans the men students will have an inactive military status but will attend classes in uniform and be under military discipline.

Selection of the students to be admitted was made by a committee of fourteen members of the medical school faculty, most of them practicing physicians, headed by Dr. Carl H. McCaskey, of Indianapolis, president of the Indiana State Medical Association. The selections were based on scholarship, character, physical examination, aptitude for the practice of medicine, and personality.

The 128 students chosen, including seven girls, are as follows:

James C. Acos, Evansville; Charles C. Alling, III, Indianapolis; John R. Anderson, Lafayette; Louis R. Baumgardt, Indianapolis; Joseph S. Bean, Rockville; David C. Beck, Michigan City; Roy H. Behnke, Mishawaka; Clifford A. Beilke, Hobart; George H. Belshaw, Bloomington; Edward J. Berman, Indianapolis; Muriel S. Bigler, Terre Haute; Donald P. Bixler, Decatur; Joseph C. Black, Jr., Bedford; Crist A. Blassaras, Anderson; James O. Bond, Greenfield; Charles E. Boonstra, Lafayette; James Bopp, Tere Haute; Maurice K. Borklund, Morocco; Dale R. Bowers, Indianapolis; Edward J. Brockman, St. Meinrad; Donald C. Brown, Orland; Robert E. Bryan, Marion; Phyllis K. Catt, Rensselaer; Paul Chasman, Indianapolis; William R. Chattin, Union City; Bruce C. Cook, Griffith; John C. Cook, Frankton; Walter H. Cory, Hagerstown; Harold M. Craig, Indianapolis; James A. Craig, Gary; Robert L. Cravens, Linton; Robert J. Crossen, Indianapolis; William H. Davis, Paragon; Frances M. Deputy, Indianapolis; Jack R. Diamond, Knightstown; James E. Dill, Fortville; Frank C. Donaldson, Greencastle; Marion C. Drake, Anderson; William M. Drake, Franklin; Richard W. Dyke, Fort Wayne; George R. Ellison, Fort Wayne; John S. Fifer, Indianapolis; Robert J. Forbes, Martinsville; James O. Futterknecht, Mishawaka; Marjorie J. Galliher, Muncie; Orville M. Graves, Princeton; Harold R. Griffith, Vevay; Ben Grubstein, Detroit, Michigan; Louis R. Gumbiner, Gary; James R. Guthrie, Greensburg; Francis M. Hamke, Vincennes; Duke E. Hanna, Jr., Indianapolis; John T. Harbaugh, Bloomington; Frederick L. Harcourt, Milroy; Eugene L. Hendershot, Evansville; Claude A. Hendrix, Jr., Martinsville; Ray A. Henn, Ligonier; Albert W. Hilberg, Michigan City; Harland V. Hippensteel, Jr., South Bend; Mark H. Huckeriede, Greencastle; James E. Hull, Columbia City; Howard L. Hunter, Beech Grove; Charles E. Jackson, Dayton, Ohio; John F. Jackson, Fort Wayne; Maurice C. Jannasch, Gary; Harold N. Johantgen, Indianapolis; Murray Jonas, Brooklyn, New York; Charles M. Kerr, Bloomington; Donald M. Kerr, Knox; Raymond K. Kincaid, Lebanon; Paul J. Kirffhoff, Indianapolis; Philip A. Lahr, Mishawaka; Herbert D. Lipner, East Chicago; Bruce A. McArt, Anderson; Clark McClure, Bloomington; William G. McDonald, Kirklin; Esther McGinness, Evansville; Clarence R. McIntire, Indianapolis; Louis J. Makielski, Mishawaka; Richard J. Markey, East Chicago; Earl J. Mason, Marion; William Matthews, Indianapolis; Robert C. Miller, Indianapolis; Bobby L. Moss, Indianapolis; Melvin J. Nevel, Mishawaka; Anne S. Nichols, Greencastle; Robert E. Ott, Churubusco; Philip T. Parker, Knightstown; Leonard V. Phillips, Thorntown; Donovan M. Pobanz, Wakarusa; Edward J. Ponczek, LaPorte; George C. Poolitsan, Bloomington; Arvine G. Popplewell, Indianapolis; Bernard F. Poracky, Whiting; Horace M. Powell, Indianaapolis; Thomas V. Reese, Indianapolis; Robert E. Rinehart, Logansport; Donald L. Rogers, New Ross; Thomas K. Rollins, Royal Center; Thaddeus Richardson, Indianapolis; John E. Ross, Indianapolis; Daniel J. Rothenberger, Pierceton; John Scott, Indianapolis; William C. Seagle, Indianapolis; Martin A. Seidell, Indianapolis; Anna P. Shay, Gary; Morris J. Shenk, Scottsburg; John A. Shively, Rossville; Charles F. Smith, Kokomo; Stanley J. Sroka, Bloomington; Robert L. Taylor, Detroit, Michigan; George V. Teter, Jr., Fort Wayne; Robert L. Tindall, Indianapolis; Elmer M. Truman, Evansville; Maurice A. Turner, Liberty; William R. Turner, South Bend; Charles J. Van Tassell, Jr., Indianapolis; Bronie A. Vingis, Bicknell; C. William Vize, Evansville; Berl B. Ward, South Bend; Richard J. Waters, Logansport; James W. Weatherholt, Fort Wayne; Harry D. Webb, Anderson; Roy M. Whitman, New York City; David J. Williams, South Bend; James A. Work, III, Elkhart; Kenneth L. Wynn, Mitchell; and William H. Zimmerman, Bloomington.

Deaths

Lewis H. Edwards, M.D., of Monroeville, died on February twelfth. He was eighty-two years of age. He graduated from the Fort Wayne College of Medicine, Fort Wayne, in 1883.

* * *

George Rock, M.D., of Auburn, died on March thirty-first. He was eighty-nine years of age. He graduated from the Toledo Medical College, Toledo, in 1909.

* * *

William M. Reser, M.D., of Lafayette, died March nineteenth, at the age of seventy-nine. He was a graduate of the Jefferson Medical College of Philadelphia in 1903. Doctor Reser was a charter member and past president of the Tippecanoe County Medical Society, an honorary member of the Indiana State Medical Association, and a member of the American Medical Association.

Edward F. King, M.D., of Anderson, died March thirty-first, at the age of fifty-five. He was a graduate of the University of Louisville School of Medicine in 1911.

* * *

Charles D. Luckett, M.D., of English, died on March thirteenth. He was eighty-one years of age. He graduated from the Jefferson Medical College of Philadelphia in 1889.

* * *

John O. Garrigus, M.D., of Terre Haute, died on April second. He was seventy years of age. He graduated from the Medical College of Indiana, Indianapolis, in 1908. Doctor Garrigus served five terms as Vigo County coroner and several times as deputy coroner. He was a member of the Vigo County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

March 5, 1943

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D., and T. A. Hendricks, executive secretary.

Report on medical meeting:

March 1, 1943—Scientech Club, Indianapolis. "American Medicine in World War II."

Requests for speakers:

March 25, 1943—WFBM, Indianapolis. Radio talk on "American Medicine in World War II." Speaker obtained.

May 19, 1943—Fourth District Medical Society, Greensburg. Three speakers to be obtained, one to speak on pediatrics, one on general medicine, and one on surgery.

EXECUTIVE COMMITTEE

March 7, 1943.

Roll call showed the following present: C. A. Nafe, M.D.; E. O. Asher, M.D.; C. H. McCaskey, M.D.; J. T. Oliphant, M.D.; A. F. Weyerbacher, M.D., and T. A. Hendricks, executive secretary.

Guests: C. L. Rudesill, M.D., chairman, and O. A. Province, M.D., member, Committee on Scientific Work; J. William Wright, M.D., co-chairman, Legislative Committee; James Carr and Paul Moore, state food rationing officer, Office of Price Administration.

Upon the motion of Dr. McCaskey, seconded by Dr. Asher, Dr. Nafe was re-elected chairman of the committee for 1943.

The statements of receipts and expenditures for December, 1942, for the association committees and for December, 1942, and January and February, 1943, for THE JOURNAL were approved.

Membership Report

Number of members March 7, 1943	2,627*
Number of Members March 7, 1942	2,663
Loss over last year	36
Number of members December 31, 1942	3,259

* This figure includes 104 honorary members and 648 men in service who received membership gratis.

Treasurer's Office

The treasurer reported that five $1,000 U. S. Saving Bonds, Defense Series G, were purchased on December 26, 1942, $2,000 for the medical defense fund and $3,000 for the general fund.

1942 Annual Session at French Lick

Check for $156.67, representing a refund on the $300 allowed the Orange County Medical Society for convention expenses, received from the secretary of the Orange County Medical Society.

1943 Annual Session at Indianapolis, September 28, 29 and 30, 1943

Commercial exhibit.

a. Floor plan approved.
b. Rental of Riley Room approved by the committee.

Scientific exhibit. The committee approved having a scientific exhibit. Dr. McCaskey appointed Dr. C. G. Culbertson as chairman of the scientific exhibit.

Instructional courses. The Executive Committee took notice of the fact that the Council had approved the institution of instructional courses at the annual meeting.

Scientific program. The general meeting is to be held Wednesday morning, September 29, with four speakers in addition to the president's address and the usual welcoming talks. Section meetings are to be held Wednesday afternoon. No scientific meeting is to be held on Thursday morning.

The committee approved having an annual banquet and annual smoker.

Legislative, Legal and Social Security Matters

National

A.M.A. Legislative Bulletin No. 24 sent to members of the Executive Committee.

The committee discussed the activities of the National Physicians' Committee, and the delegates and alternates to the American Medical Association are to be invited to meet with the Executive Committee at its next meeting.

It is noted from the legislative bulletins that other states are having cult troubles.

Resolution adopted by the National Conference on Medical Service favoring "the immediate development of a stronger national economic and legislative policy governing the practice of medicine" discussed by the committee. A copy of this resolution appears in the March issue of THE JOURNAL.

Local

1943 legislature. Report on cult legislation made by Dr. Wright, co-chairman of the Legislative Committee.

Change in University hospitals admission laws discussed by committee, and policy of not opposing these bills approved by the Executive Committee.

The Executive Committee expressed its deep appreciation for the services rendered by the Legislative Committee, particularly by Dr. Beatty and Dr. Wright, co-chairmen.

The committee expressed its appreciation for the work done by Dr. John Hewitt, who during the legislature spent his full time in touch with the General Assembly.

Organization Matters

Refund of dues to physicians in service. The committee feels that these dues should be refunded to the doctors in service and that they should not be kept in the treasury of any county medical society.

Honorary membership. Letter received from a physician who is entitled to honorary membership but who does not wish to be placed in this classification. The committee felt that any physician has a right, if he so desires, to pay his dues and reject honorary membership.

Membership in Indiana State Conference on Social Work. The committee approved continuing this membership.

Unethical practice. Letter received from the secretary of a county medical society complaining about the unethical practice of a physician in taking cases from an osteopath. The Executive Committee felt that this was a matter for local consideration and suggested that the secretary of that county medical society write to the councilor for the district, as this has to do with a matter of ethics.

Memorial volumes in Indiana University School of Medicine Library for Deceased Ex-presidents. The committee approved the purchase of volumes in memory of Dr. F. W. Cregor and Dr. J. Rilus Eastman.

Medical Economics

National Conference on Medical Service. The papers read at this conference are to be available for printing in THE JOURNAL. Among these will be the papers given by Dr. Carl McCaskey.

War Medicine

National Conference on Planning for War and Postwar Medical Services, New York City, Monday, March 15. Dr. McCaskey and the executive secretary authorized to attend the conference.

Doctors' certificates for additional food rationing stamps for patients. Paul Moore, state food rationing officer, Office of Price Administration, appeared before the committee and discussed the question arising from requests received from physicians for additional food rationing stamps for their patients. The committee approved a uniform certificate for the use of physicians. The president was authorized to appoint a committee to work in co-operation with the state Office of Price Administration. A bulletin was to be sent out to the county medical society secretaries informing them of the regulations.

Organization of Chapter Nurse Recruitment Committee. Report upon recruitment of nurses made by Dr. Nafe.

Industrial Medicine

Report made upon Industrial Health Conference held February 25 and 26, 1943.

Farm Security Administration

Statement by Dr. F. D. Mott, chief medical officer, Farm Security Administration, before Pepper committee, advocating extension of government services in the field of health, brought to the attention of the Executive Committee.

Socialized Medicine

"Social Insurance in a Democracy," a pamphlet prepared by the Metropolitan Life Insurance Company, to be reviewed by Dr. Nafe and report to be made to the Executive Committee at its next meeting.

State Board of Health

Rights of State Board of Health laboratory to make venereal disease tests questioned by several private laboratories. Correspondence between the head of one of these laboratories and Dr. Thurman Rice, secretary of the State Board of Health, brought to the attention of the Executive Committee. This correspondence is to be forwarded to the chairman of the Committee on Venereal Disease.

Group Hospitalization and Medical Service Plans

Bill to make legal, non-profit hospital plans failed to pass legislature. This bill had been referred to the Insurance Committee in the House of Representatives and was opposed on the ground that it provided no control by the Insurance Department and would allow the formation of fly-by-night so-called non-profit hospital insurance groups.

Blue Cross plans. Report made to Executive Committee that the resolution presented by the Blue Cross group at the national annual meeting of group hospital organizations had been rejected. Letter from Dr. Norman Scott, head of the New Jersey hospital plan, protesting such a federalized program brought to the attention of the committee.

"Enabling Acts for Medical Service Plans," a brochure compiled by the Americal Medical Association, received by the committee.

The Journal

Journal paper. Letter received concerning the curtailment in the production of the 60-pound book paper used in THE JOURNAL. THE JOURNAL is safeguarded, however, by a six-months' supply on order.

Increase in printing costs. Report made that the National War Labor Board has granted an increase of 7 cents an hour to the members of the Indianapolis Typographical Union No. 1. This increase will increase the total cost of printing THE JOURNAL 3½ per cent, or $25 to $30 per issue, effective March 1, 1943. In setting up the 1943 budget the Budget Committee made allowance for this increase.

Acceptance of advertising of products not yet Council accepted. Letter received from *The Journal of the Michigan State Medical Society* concerning the acceptance of advertising of products manufactured by reputable companies which are not yet Council accepted brought to the attention of the committee. The committee is to discuss this matter further at its next meeting.

Medical Defense

Question as to whether the state medical association should arrange with some company for a group malpractice policy discussed by the committee. Information concerning what might be done in regard to this brought to the attention of the committee and suggestion made that this matter be discussed with several companies. Several physicians have written Dr. Nafe approving a group insurance plan.

Copies of article upon professional liability insurance by M. Coate McNeely, which suggested some form of group insurance arrangement, distributed to the committee.

There being no further business, the meeting was adjourned.

COUNTY SOCIETIES

COUNTY MEDICAL SOCIETY OFFICERS

(Numerous reports have been published in earlier issues; these additional reports have been received since publication of these issues.)

CASS COUNTY MEDICAL SOCIETY
President, Thomas Cooper, Logansport
Vice-president, D. E. Lybrook, Young America
Secretary-treasurer, H. M. Shultz, Logansport

Carroll County Medical Society members held a dinner meeting at the Welcome Inn, at Delphi, on March eighteenth. Dr. E. H. Brubaker, of Flora, was the speaker of the evening.

* * *

Clay County Medical Society members met at the residence of Dr. and Mrs. J. F. Maurer, at Brazil, on March sixteenth. Eleven members were in attendance at this meeting.

* * *

Delaware-Blackford County Medical Society members held a meeting at the Ball Memorial Hospital, at Muncie, on March twenty-third. A movie was shown on "The Sulfonamides." Twenty-six members were present at the meeting.

* * *

Dearborn-Ohio County Medical Society members held a special meeting at the Regan Hotel, Lawrenceburg, at 6:30 P.M., April first, to celebrate Dr. A. T. Fagaly's fiftieth anniversary in the practice of medicine. During all his fifty years of practice, he has been located in Dearborn County, most of the time in Lawrenceburg.

Dr. O. S. Jaquith, of Indianapolis, long-time fellow practitioner in Lawrenceburg, was present to help celebrate. Much reminiscing was indulged in. A suitable medal, properly inscribed, was presented to Doctor Fagaly.

The wives of the Society members and many friends were in attendance.

* * *

Greene County Medical Society members met at the Freeman-Greene County Hospital, at Linton, on March eleventh, for a dinner meeting. Dr. K. L. Hull, of Bloomfield, spoke on "Anesthesia." Sixteen members were in attendance.

(Continued on page xxi)

(Continued from page 282.)

Lake County Medical Society members held a meeting at St. Margaret's Hospital, at Hammond, on March eleventh. Dr. Franklin B. Peck, associate medical director of Lilly Research Laboratories, was the speaker of the evening. His topic was "Treatment of Diabetes with Insulin-Protamine Zinc Insulin Mixtures." Members of the Tenth District Medical Society were guests at this meeting.

* * *

LaPorte County Medical Society members held a meeting at the Spaulding Hotel, at Michigan City, on March eighteenth. Dr. B. H. Orndoff, of Chicago, was the guest speaker, his subject being "Influence of Sex Hormones on Certain Tumors." Seventeen members attended the meeting.

* * *

Marshall County Medical Society members met at Roy's Cafe, at Plymouth on March second. Dr. Leon J. Witkowski, medical director of the Kingsbury Ordnance Plant, spoke on "Industrial Illnesses as Seen at the Ordnance Plant." Ten members were in attendance.

* * *

Monroe County Medical Society members held their February meeting at the Graham Hotel, at Bloomington, on the twenty-fourth. R. N. Harger, Ph.D., of Indianapolis, spoke on "Chemical Warfare." Thirteen members were present at the meeting.

* * *

Montgomery County Medical Society members met at the Culver Hospital, at Crawfordsville, on March eighteenth. Dr. Harvey Sigmond, of Indianapolis, was the speaker of the evening.

* * *

Randolph County Medical Society members held a meeting at Winchester, on March eighth. Dr. Henry Shallenberger, of Modoc, and Dr. C. E. Martin, of Lynn, were the speakers, "Diaphragmatic Hernia Following Accident" being the subject of the evening. Ten members attended the meeting.

* * *

Rush County Medical Society members held their March meeting at the Lollis Hotel, at Rushville, on the seventh. Dr. George Davis, of Indianapolis, was the guest speaker, his subject being "Undulant Fever." Eight members were in attendance.

On April seventh, the society met again at the Lollis Hotel. Dr. J. S. McBride, of Indianapolis, spoke on "Diagnostic Tests in Tuberculosis." This was a joint meeting with the officers of the Rush County Tuberculosis Association. Sixteen members were in attendance.

* * *

Tippecanoe County Medical Society members held a meeting at the Lincoln Lodge, at Lafayette, on March ninth. Dr. C. O. McCormick, of Indianapolis, spoke on "Obstetric Helps." Thirty-five members were present at the meeting.

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GYNECOLOGY—Two Weeks Intensive Course starting June 28. One Month Personal Course starting August 2. Clinical and Diagnostic Courses.
OBSTETRICS—Two Weeks Intensive Course starting October 4.
OPHTHALMOLOGY—Two Weeks Intensive Course starting September 13. Course in Refraction Methods October 4.
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Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club, on March second. Case reports were presented by Dr. George D. Davis, Dr. Olga B. Booher, Dr. Carl Habich, and Dr. Walter P. Moenning, all of Indianapolis.

Dr. Carl P. Huber, of Indianapolis, and Dr. E. Vernon Hahn, of Indianapolis, were the speakers at a meeting held on March ninth. Their subjects were "Dysmenorrhea" and "Vertigo," respectively.

At a meeting held March sixteenth at the Indianapolis Athletic Club, the following papers were presented: "Cancer of the Cervix," by Dr. J. William Hoffman, and "Penicillin," by Dr. K. K. Chen. The discussants for the papers were Dr. Chester A. Stayton and Dr. Gerald F. Kempf, respectively.

On March twenty-third a meeting was held at the Indianapolis City Hospital, the program being presented by the staff of the hospital.

Dr. David A. Boyd, of Indianapolis, spoke on "Psychiatric Problems of War and Post-War Period," at a meeting held on March thirtieth.

WOMAN'S AUXILIARY to the Indiana State Medical Association

President—Mrs. Arnold H. Duemling, Fort Wayne
President-elect—Mrs. James W. Baxter, Jr., New Albany
Corresponding Secretary—Mrs. E. M. VanBuskirk, Fort Wayne
Treasurer—Mrs. C. E. Monk, Kendallville

TO OUR HOOSIER DOCTORS

As president of the Woman's Auxiliary to the Indiana State Medical Association, may I express our great pride in our Hoosier medical profession for their ready and voluntary response to our country's emergency needs. We know that Indiana was the first state in the Union not only to fill, but also to exceed its quota of doctors needed for medical service in the armed forces.

We honor our Indiana doctors at home and in the armed forces for their noble work and untiring efforts in their fight against disease and in the relief of suffering humanity.

As an organization, we wish to pay tribute to our Hoosier medical profession for their patriotic response, for their supreme courage, and for their ageless loyalty and continuous service to mankind. Our praise, faith, and prayers are with you.

Mrs. Arnold H. Duemling.

THE TWENTY-FIRST ANNUAL MEETING CHICAGO, JUNE 7-9, 1943

Because of the existing war conditions, it was deemed advisable by the American Medical Association to cancel the 1943 annual session and hold only a meeting of the House of Delegates in Chicago. The Woman's Auxiliary, by action of the Board of Directors in Atlantic City on June 11, 1942, and in Chicago on November 20, 1942, will likewise confine their 1943 session to a meeting of the Executive Board and the House of Delegates in Chicago, June 7 to 9, to effect a change in officers.

The Drake Hotel has been selected as headquarters for this meeting and the following rates will prevail:

Single room with bath, $3.50 per day and up.

Double room with bath, $6.00 per day and up.

Suite (living room, bedroom and bath), $12.00 per day and up.

It is suggested that those planning to attend the meeting arrange for railroad and hotel accommodations (with the Drake Hotel directly) as soon as possible.

While the action of the Board of Directors calls for a meeting of only the Executive Board and the House of Delegates, any members of the Auxiliary who should happen to be in Chicago at the time of the meeting will be most welcome to attend the general sessions.

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Entering the fight on lands and seas.
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Books

BOOKS RECEIVED

THE MARCH OF MEDICINE. The New York Academy of Medicine Lectures to the Laity, 1942. 217 pages. Cloth. Price $2.50. Columbia University Press, New York, 1943.

THE KENNY CONCEPT OF INFANTILE PARALYSIS AND ITS TREATMENT. By John F. Pohl, M.D., in collaboration with Sister Elizabeth Kenny. 366 pages. Cloth. Price $5.00. Bruce Publishing Company, Minneapolis, 1943.

THE PHARMACOPOEIA OF THE UNITED STATES OF AMERICA. Twelfth Revision. U.S.P. XII. By Authority of the United States Pharmacopoeial Convention. 880 pages. Fabrikoid. Price $7.50. Mack Printing Company, Easton, Pennsylvania, 1942.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, February, 1943

	February 1943	*January 1943*	*December 1942*	*February 1942*	*February 1941*
Tuberculosis, Primary	79	2	2	5	0
Tuberculosis, Active	208	106	870	66	51
Tuberculosis, Arrested	24	5	7	11	0
Chickenpox	422	383	342	439	538
Measles	1161	738	178	265	1107
Scarlet Fever	449	453	195	571	661
Smallpox	31	49	20	1	3
Typhoid Fever	2	6	4	6	7
Whooping Cough	168	109	71	182	85
Diphtheria	18	27	24	29	49
Influenza	99	78	47	136	412
Pneumonia	253	210	109	79	139
Mumps	557	291	189	68	209
Poliomyelitis	1	5	2	2	1
Cerebrospinal Meningitis	21	22	9	3	3
Rubella	1502	701	33	9	0
Tularemia	2	10	8	0	3
Vincent's Angina	31	25	23	0	0
Encephalitis Lethargica	1	0	0	0	0
Diarrhea	73	0	0	0	0

Monthly Report, March, 1943

Diseases	*Mar. 1943*	*Feb. 1943*	*Jan. 1943*	*Mar. 1942*	*Mar. 1941*
Tuberculosis, primary	15	79	2	8	0
Tuberculosis, active	200	208	106	78	104
Tuberculosis, arrested	10	24	5	6	0
Chickenpox	442	422	383	503	794
Measles	1356	1161	738	401	3791
Scarlet Fever	387	451	453	578	898
Smallpox	16	29	49	2	8
Typhoid Fever	6	2	6	5	7
Whooping Cough	182	168	109	153	123
Diphtheria	20	18	27	34	89
Influenza	53	99	78	160	259
Pneumonia	78	253	210	116	122
Mumps	326	557	291	141	272
Rubella	898	1502	701	61	158
Cerebrospinal Meningitis	26	21	22	2	9
Trachoma	1	0	1	0	26
Vincent's Angina	12	31	25	3	0
Undulant Fever	1	0	1	2	2
Dysentery (unclassified)	1	0	0	2	0
Malaria	1	0	0	0	0
Tetanus	1	0	0	0	0
Erysipelas	1	0	0	0	0

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Contents

ORIGINAL ARTICLES

Industrial Hygiene in War Production. J. J. Bloomfield, Bethesda, Maryland 283

Organization of Medical Services in Industry. Edward C. Holmblad, M.D., Chicago, Illinois 289

Fatality Following Neoarsphenamine Therapy. Minor Miller, M.D., Evansville 292

Brucellosis. Dan L. Urschel, M.D., Mentone 294

The Prevention and Treatment of Postoperative Pulmonary Atelectasis by the Stir-up Regimen and Tracheobronchial Toilet. William B. Adams, M.D., Muncie 299

When Should the Blood Test be Taken During Pregnancy? S. R. Mercer, M.D., Fort Wayne 301

Syphilis Control in Industry. H. A. Vonachen, M.D., Peoria, Illinois 302

EDITORIALS

Walter F. Carver 305

The "Gimme" Artists 305

Scrap 306

War Bonds and Rationing 307

Women in Industry—A Problem 307

Editorial Notes 308

SPECIAL ARTICLES

President's Page 310

Nurses Needed in the Armed Forces. Mrs. G. D. French, Indianapolis 311

Extra Ration Points for Special Diets 312

Maternity and Infant Care for Wives and Infants of Men in Military Service. Thurman B. Rice, M.D., and Robert E. Jewett, M.D., Indianapolis 316

Medical Profession Pledges Care for Needy Wives and Children of Service Men 318

Gross Income Tax Status of Military Personnel 318

Medicine Today 320

MISCELLANEOUS

Deaths 323

Military News 324

What Went on During World War I 327

News Notes 328

Indiana University News Notes 329

Societies and Institutions:

Indiana State Medical Association: Bureau of Publicity 330

Local Societies—Meetings 330

Woman's Auxiliary xxii

Books xxii

Indiana State Board of Health xxiii

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VOLUME 36 JUNE, 1943 NUMBER 6

INDUSTRIAL HYGIENE IN WAR PRODUCTION*

J. J. BLOOMFIELD†

Sanitary Engineer, U. S. Public Health Service

BETHESDA, MARYLAND

All of us have been thrilled by the glorious triumphs of our Allies in Russia and in Africa. On the very threshold of defeat, the Red Army and the British Eighth Army performed the miraculous, and in their 1942 counterattacks took the offensive. In the Southwest Pacific our own fighting forces have demonstrated the American brand of warfare by their recent successes against the Japanese. Yes, we have drawn new courage from the heroic efforts of our Allies, but it is all the more heartening to realize that we Americans have played a very real part on their battlefronts.

Many of the weapons which our Allies used to achieve these victories were forged in this country. And there is no doubt that many of these victorious arms were produced right here in Indiana, where some of our large ordnance plants are located. Special flight clothing used by the United Nations' airmen, aircraft parts, two-way radios essential in both aerial and tank warfare, famous airplane engines, precision instruments, and parachutes—these and many other vital fighting weapons—are being produced in a constant stream right here among us.

All this is good news, indeed, after the first months of defeat and disappointment. But we have not won the war yet, and we cannot—we dare not—slacken our efforts. As our leaders have told us frankly, we are merely at the beginning of things.

War production is the very core of our offensive action and it will remain our paramount duty till the war ends. Since industrial hygiene plays such an important role in the production effort, those of us engaged in this work must constantly review our problems, our responsibilities, and our future efforts. However, before we can analyze the situation in detail, we should be quite clear as to what we mean by industrial hygiene and as to how it is being adapted to war production as compared to peace-time production.

INDUSTRIAL HYGIENE BEFORE THE WAR

If we have learned anything at all in the field of industrial hygiene during the past fifteen months of war, it is that the worker himself is the most important factor in getting out production. We are fast reaching the limit in the size of our labor force. It is obvious, then, that the worker must be on the job not only at the start, but until the finish, if we are to achieve our present production goals. *The real challenge to industry today lies in the effective utilization of this great force.*

Before the war industry was in a position to recruit the "cream of the crop," since there was an ever-plentiful supply of manpower. Perhaps it was natural under such conditions that management displayed little concern about the worker's private life—that is, his home, his habits, and his attitude towards his work. Labor, on its part, probably would have resented and labeled as paternalistic any effort by management to assist in dealing with these problems. Labor was more concerned with obtaining concessions as regards hours and wages, more liberal compensation laws, and seniority privileges.

Prior to the war great strides had already been made in our concept of industrial hygiene and in our application of new knowledge. Realizing that the health of the worker is influenced both by his working environment and by many outside factors, we had broadened our scope of usefulness in the field of industrial health maintenance. Progressive leaders in management and in industrial hygiene began giving their attention to adequate housing, mental health, improved nutrition, and the provision of medical care. Moreover, it was not a diffi-

* Presented at the Indiana Industrial Health Conference, at Indianapolis, on February 25, 1943.

† From the Division of Industrial Hygiene, National Institute of Health, United States Public Health Service.

cult matter for management to bring and keep under control hazardous conditions in the working environment itself, as attested by our decrease in occupational accidents and in many of the occupational diseases. Industry was beginning to abandon the use of many toxic materials, such as benzol and other solvents; toxic metals, such as radium and mercury; and hazardous processes, such as the use of sand as an abrasive blast-cleaning material.

In the days before priorities it was relatively easy to control a hazardous exposure, either by substituting non-toxic or less toxic materials for the toxic ones, or by installing protective devices which were easily obtained.

Insofar as living conditions were concerned, no very serious problem existed, since industrial communities were developed leisurely as the needs arose. With no restrictions on tires and gasoline, it was a simple matter to travel long distances to work at those factories not contiguous to ample housing facilities.

I do not wish to leave the impression that we had solved all of our problems in industrial hygiene before the war. In fact, one of the very real advances we had made was to secure a clear definition of the national problem through careful studies made by the United States Public Health Service and co-operating state health departments. These surveys showed a vast amount of disability among industrial workers, widespread potential hazards, meager facilities for their control, and an even scantier provision of industrial medical service. The problem of the small plant was clearly revealed. And the lack of teaching facilities in industrial medicine was a real problem. Nevertheless, for those of us who had been associated with this work over the last two decades, it was easily discernible that great strides had been made and were being made in the improvement of the working environment. Perhaps the most significant advance was the establishment of governmental industrial hygiene services in a number of states, to assist industry and the professions. This, of course, was made possible by the allocation of federal funds by the Public Health Service, under the provisions of the Social Security Act.

Just about the time when we were becoming complacent about our achievements, along came the war and changed the entire picture in such a revolutionary manner that our previous difficulties now appear to have been slight. However, just as national crises entailing social and individual hardship usually result in progress which otherwise would have been retarded or not achieved at all, so may we expect that the influence of war upon industrial hygiene will result in great gains to all concerned.

INDUSTRIAL HYGIENE PROBLEMS IN WAR PRODUCTION

Management, labor, and the general public alike are now fully aware that this war will be won or lost on the production line. In a recent report on manpower, the Brookings Institution pointed out that there are only three methods of increasing production: (1) by increasing the number of persons in the labor force; (2) by increasing the hours of work; and (3) by increasing the efficiency per hour worked. It follows, therefore, that improved working conditions, planning, management, and the reduction of absenteeism, are actually *essential* in increasing productivity. These and other factors have significant implications and bring added responsibilities to the industrial hygienist. For the sake of discussion, we can conveniently divide these problems by thinking of them in terms of the worker, his home, the community in which he lives, and his workplace.

Composition of the War Labor Force

Let us take, for example, the expected increase in the labor force and determine its influence on the work of the industrial hygienist. It is necessary to produce and transport the quantity of materials necessary to support our armed forces and those of our Allies, and still to produce that minimum amount of essential goods and services required for civilians. Our requirements by the end of 1943 call for a labor force of nearly 62,500,000 persons (including the armed forces). Of that number over 38,000,000 or 60 per cent, will be in the armed forces or engaged in activities essential to the war. It is estimated that the labor force plus the armed forces will not be increased more than 2,700,000 during the year.

What is the significance of these figures—at least to the industrial hygienist? At the end of 1942 we had only 1,500,000 unemployed. Unemployment is not expected to fall below a million by December, 1943. We can expect—at most—only an additional half million from the unemployed. The rest will have to be drawn from groups of people who have never worked. This tremendous change in the make-up of the working force is of utmost significance both in military service and war production, for even these largest consumers of manpower are having to employ women, adolescent boys, the aged, and the handicapped. And obviously these groups will more and more alter the character of the labor force.

You have today heard about the problems of the employment of women in industry. Our attitude should be realistic. After all, we are employing millions of women in war industries, and we will employ many more millions. The conservation of womanpower should offer no more of a problem to us than the conservation of manpower. If we give women healthful working conditions, adequate training in safe practices, and good medical services, we can expect as good results in reducing time-loss due to industrial disabilities among these labor recruits as we know we can obtain among men.

The same may be said about the employment of the younger males, the aged, and the handicapped. Many industries have already revised, downward,

their peacetime standard of physical qualifications for the job. Here the industrial physician has a definite responsibility in influencing and guiding decisions with respect to the employment of the handicapped, the aged, and the very young. In order to give intelligent guidance to management, the industrial physician will need to have a detailed knowledge of the jobs in a given plant, and not merely a list of the vacancies to be filled. He will have to know the actual operations, the potential exposures, and the required physical capacity for each operation. This kind of knowledge can not be acquired from textbooks or from lectures. It must be learned by personal study of the problem on the job. Knowledge of the job, combined with the physician's knowledge of the worker's physical condition, will make it possible to salvage many thousands of handicapped workers, and to utilize *all* applicants for more effective participation in the war production drive.

The Community Environment and the Worker

Let us now turn to the home and community environment. The industrial hygienist fully realizes that his efforts to insure a safe and healthful working environment may often be nullified by unfavorable conditions in the home and in the community. A worker who is absent from his job because of a serious cold is as much of a loss on the production line as if he had been disabled by an occupational accident or disease. And he may have caught his cold from the worker next to him.

With the shortage of manpower becoming more and more acute daily, all causes of absenteeism concern the industrial hygienist—even some which appear to be "distant relatives" of sickness. Quite plainly, then, the worker's individual health, his family's health, and the community health are so closely interwoven that one cannot consider one without the other.

Some of the home problems which concern us are general illness, accidents, poor nutrition, and crowding, which robs the worker of rest and of the facilities to keep clean. These conditions play an important role in getting the worker on the job and keeping him fit.

The community, which is made up of the various homes and the public facilities, has also been seriously affected by the war effort. We are only too familiar with the problems brought about by the transmigration of workers and their families to communities already overcrowded, or to rural areas where new war plants have been built with little thought as to the provision of such rudimentary facilities as adequate housing, safe water and milk supplies, and sewage disposal.

With the crowding in factories, the crowding in homes, and the crowding in transportation facilities, war industries are under constant threat of outbreaks of contagious disease among employees. You do not need to be told that a materialization of that threat would seriously disrupt production. In fact, we have already experienced one or two such outbreaks in some of our shipbuilding areas.

Of almost equal importance is the fact that unsuitable living conditions are instrumental in the high labor turnover experienced by many industries. A good deal of the absenteeism and labor turnover is caused by workers looking for better homes near their jobs, or for new jobs where they can find better homes and better public services than the poor facilities now at their disposal.

The strengthening of general health services in a community thus becomes an essential part of the industrial hygiene program. The industrial physician should, of course, be able to rely upon his local health officer to fight this rear-guard action in support of his front-line attack against time-losses on the war production front. The Public Health Service has been assisting the states in holding the line against preventable diseases by recruiting and training nearly one thousand professional workers and assigning them to critical war areas; but in many "boom towns," where the health authorities have been hamstrung by local inertia, truly appalling conditions remain unchecked.

The industrial physician must be fully aware of the influences upon industrial health which can be brought about by the disruption of community facilities. This may be the first disruption to be felt in the industrial physician's practice, and often one of the last to be recognized. It is true that the industrial physician has a big job in the plant itself—a job of prevention—but he will find that he cannot accomplish this job effectively without a prompt and responsible recognition of the influence of living conditions upon absenteeism and industrial disability.

We often have heard it said that this is a total war and that half-way measures and half-way acceptance of responsibility, and a half-way concept of the job, will not win. The industrial physician who does not exert his influence upon his community for the improvement of services affecting the workers' health is doing a half-way job.

Problems of the Working Environment

The most direct impact of the war upon industrial hygiene is the speed with which fundamental changes have taken place within industry itself. New machinery, new processes, new substances, and new application of old materials—all have been introduced with incredible speed during the past fifteen months. In fact, our task of conserving life and health on the production front has been even greater up to the present time than it has been on the military front. The War and Navy departments have estimated that at the end of our first year of combat, our military operations resulted in the loss of approximately 11,000 lives. Contrast this with the recent estimates released by the National Safety Council on accidents alone, which showed that 18,500 workers were killed on the job in 1942, and another 29,000 off the job. If we com-

pared the non-fatal injuries in industry with those among our military forces, proportionally great differences would be found. Our industrial casualties are not so dramatic as our military casualties and do not capture the public imagination; but these losses to the nation and to the war effort are equally disastrous, equally worthy of all our concern for their prevention.

The conversion of peacetime industries to war production has introduced innumerable factors affecting the health of workers. Time does not permit me to enumerate the health problems which are arising daily in the working environment. Many specific hazards have today been well presented, and tomorrow others will be treated effectively. Suffice it to say that some of the potential exposures involve the use of toxic solvents, such as benzol and the chlorinated hydrocarbons; toxic metals such as mercury, radium, manganese, and cadmium; the introduction of high speed abrasive tools; the use of the x-ray for detection of flaws in metal castings and forgings; excessive noise; excessive exposures to substances producing dermatoses; the manufacture of explosives on a large scale; and the tremendous use of the welding process. These and many other wartime procedures have brought in their wake countless problems which seriously challenge the industrial hygienist. Added to these have been the problems created by longer hours of work in some plants, the disruption of eating and sleeping habits caused by the three-shift day, and—one of the most recent vexing problems—high absenteeism rates.

Each change offers a direct challenge to the general practitioner in the industrial community, as well as to the industrial hygienist. Very often the physician is the first to see the results of toxic exposures, of industrial accidents and fatigue. In a zealous attempt to obtain peak production, management and workers alike are apt to overlook conditions affecting health or not even to recognize them until some unfortunate incident results in sickness, injury, and lost time. That is why the Indiana Medical Association, the University School of Medicine, the State Board of Health, and all others instrumental in this pioneering effort to bring to physicians emergency educational opportunities in industrial hygiene and medicine should be commended for their timely endeavors. Already the plan developed here in Indiana has received such favorable attention that similar programs are being considered in other states.

Perhaps the best way I can bring to your attention the importance of these efforts in our present emergency would be to tell you about a recent incident on the production front. Some of you may have read recent newspaper accounts of a dermatitis outbreak and of three deaths caused by acute yellow atrophy of the liver, which occurred among workers at an electric cable plant in New York State. These reports rapidly reached some of our shipyards in the Northwest, where electricians were handling wire made by the same company in whose plant the New York outbreak had occurred. Chloracne had also occurred among the electricians in the Seattle shipyards, and this, combined with the newspaper reports, caused considerable alarm among the workers, who threatened to strike. An appeal was made by the state health commissioner and his industrial hygiene director to our division. Dr. Louis Schwartz, in charge of our dermatoses investigations, flew to Seattle to inquire into the matter. His investigation disclosed that only one shipyard had cases of chloracne. Three other yards used another type of cable, and the electricians were found to spend only a part of their time in a certain stripping process associated with this type of skin disease. The investigation further disclosed that the cable which caused the acne was asbestos, impregnated with chlorinated compounds in a loosely packed manner, permitting it to flake off easily.

Doctor Schwartz was able to evaluate the hazard, suggest appropriate control measures, and thus allay the fears of the workers so that they remained on the job. In addition, he called a meeting of all the dermatologists in Seattle for a thorough discussion of the chloracne cases and the results of his investigations, thus stimulating interest in industrial dermatology among the profession. Although in this particular case the problem was solved quickly and easily, delay in recognizing it and in taking the necessary preventive steps might have caused a serious stoppage of work in one of our most vital industries.

INDUSTRIAL HYGIENE PRACTICE TODAY

I have touched upon the scope of industrial hygiene problems in war production, and now I should like to discuss briefly how some of these problems are being solved. Early in 1941, with the guidance of Doctor Selby's Subcommittee on Industrial Health and Medicine, the Division of Industrial Hygiene, National Institute of Health, in consultation with the various state and local industrial hygiene units, developed a nation-wide co-ordinated program to meet the emergency. Today we have a combined force of more than five hundred persons in the Public Health Service and in thirty-eight industrial states, where about 95 per cent of the country's labor force is employed. At no other time has the organization been so extensively developed, but the limitations in appropriations, facilities, and especially in trained personnel, make it impossible for our combined federal, state and local forces to serve more than some 7,000 plants employing 3,000,000 workers in any one year.

Congress has recognized the needs in industrial hygiene by appropriating emergency funds for the use of our division. Rather than build up a strong central organization, working out of Washington and rendering direct services to war industries, we have utilized these funds to recruit and train personnel and to assign them to those states which have been unable to meet the demand with their existing personnel and facilities. Some sixty pro-

fessionally-trained workers have been assigned to nearly thirty states, and additional assistance has been given by the loan of valuable equipment. The philosophy behind this approach is that these emergency funds give us an opportunity to strengthen the state organizations, which, after all, have the legal responsibility for industrial health maintenance. This procedure should enable the various states to demonstrate in an effective manner the value and importance of industrial hygiene services, thereby creating a real demand for the continuation of such services after the war and under state financing.

More recently the state and local medical societies, through their committees on industrial health, have been active in the field of industrial health. These committees, affiliated with the Council on Industrial Health of the American Medical Association, are developing programs and setting up standards for medical practice in industry. For example, in one state co-operative programs for the promotion of medical examinations in industry are being launched under the auspices of the Committee on Industrial Health of the state medical association, with similar committees in the local societies. In several other states, the committees on industrial health of the state medical societies, in co-operation with other health agencies, are sponsoring industrial hygiene institutes for private and industrial practitioners.

Aside from the assistance which the Public Health Service has been giving to the states, our division has been assisting the Army and the Navy, either in vital research on war problems or in the inspection of Government-owned industrial establishments. Through our co-operative arrangement with other federal agencies, such as the War Production Board and the War Manpower Commission, it has been possible to create a tremendous interest in industrial health and to utilize the prestige of these war agencies in the practical application of industrial hygiene.

The War Production Board, through its Labor Division and its War Production Drive campaign, has taken a keen interest in labor-management relationships for the promotion of industrial health.

To those of us who are innocent by-standers in labor-management differences, it would seem obvious that both groups should be of one mind when it comes to industrial health conservation. Moreover, management today realizes that it cannot restrict its attention solely to the reduction of compensation costs. Organized labor is beginning to realize that it can no longer be concerned only with bargaining for higher wages, shorter hours, seniority rights, and other economic advantages. Neither group can afford to lose the services of one worker for any preventable cause. Our war materials must be delivered on schedule. Our labor supply is shrinking and our production costs can only be kept within certain limits by making the fullest possible use of the available labor supply. Therefore, in order to attack this problem vigorously and effectively, teamwork will have to be the watchword.

To begin with, management should consider its industrial health or medical department an asset and not a liability or a luxury to be discarded after the war. The medical department should be given the dignified status which would rank it on a par with operations. The head of the industrial health department should be in a position to discuss his problems directly with top management. Many may say that the pre-placement and periodic physical examination has no place in industry today because of the time the procedure consumes, but these examinations are now even more important than ever before, and must be done conscientiously and carefully if we are to utilize every person who wants to work. I am sure that if industrial management and workers together demand such services, the medical profession stands ready to deliver them.

The workers, too, must assume a certain responsibility in this partnership, for with organization and the power resulting from it there must also be a sense of responsibility. Workers desire a stake in this program, not as passive recipients of health and medical services, with benefits which they may not understand or of which they may be suspicious, but as active partners in the venture. In order to assume such a partnership, the workers themselves will have to be informed on health matters and on the aims of their health services. They must take an equal responsibility for maintaining their own physical and mental fitness. When this is done, we have in labor an untapped reservoir of co-operative help in our professional tasks.

To promote this partnership, the War Production Board has organized nearly 2,000 labor-management production drive committees, and we are urging that these committees be utilized on the health front. In order to assist these committees our division has prepared a program of good industrial hygiene practice and has placed such a program in the hands of each committee, as well as in many war contract plants which still do not have such committees.

The first task of these committees should be to secure a healthful working environment and in-plant medical service. Management and labor should then make a complete inventory of the community resources available to them for securing general medical, hospital, and health services. With a responsive medical profession, a responsive state health department, and a responsive industrial hygiene service—such as are represented here today—management and labor in Indiana should not lack any of the preventive and curative facilities they need to advance the industrial health front.

POST-WAR CONSIDERATIONS

Last April, at the annual meeting of the National Conference of Governmental Industrial Hygienists, I stated that sooner or later we would have to con-

sider the problems which will face us when the war is over, but that our first tremendous task was to win the war. I still subscribe to the priority of "first things first," but now it seems that we have made a sufficient start in overcoming our present difficulties to warrant some consideration of post-war problems in industrial hygiene.

The need for industrial hygiene will be even greater after the war than it is today. The problems may be similar in character, but will certainly be wider in scope. In planning the post-war "preparedness campaign," the National Resources Planning Board included in its program such items as the return of service men to their former jobs; programs for men let out of war industries and for the reconversion of the war industries to peacetime production; plans for rebuilding cities and terminals; new transportation facilities; research; and services in the fields of health, nutrition, medical care, education, and recreation. Plans are being considered for broadening the present scope of social insurance, and for labor and its participation in the new expanding economy, including not only working conditions, rates and hours, but also relations with management and the consumer, and the training of new skills.

We, as industrial hygienists, should be actively interested and concerned in these and other post-war considerations. The millions of returning soldiers and the millions of war workers alone pose a real challenge. How many of these will have to be taught new trades and tasks? How many will have to be physically and vocationally rehabilitated? More research will be needed on materials, safety devices, and new processes. The transmigration of population will be enormous—more drastic than we are witnessing today. These adjustments will create further social and economic dislocations of our working population and augment our problems.

We shall certainly be better prepared to meet these post-war problems in industrial health than we were a generation ago. By the end of this war, through such efforts as we are witnessing here in Indiana tonight, more professional people will be versed in industrial hygiene skills than ever before. Management, labor, and the public will come to accept industrial hygiene as commonly as these groups now accept other standards of living. To supply the demand it may even be necessary to recruit more personnel if we are to maintain and extend today's gains and to advance the broader concept of adult health in industrial hygiene. Legislation will need to be extended and made more uniform in order to protect the working population against industrial health hazards and the possible lowering of living standards. Emphasis on industrial health services in the small plants will need to be continued and extended.

I have listed only a few of the problems and opportunities which will confront the industrial hygienist after the war. It seems to me that we have nothing to fear from post-war planning, but rather much to gain. However, to make sure that future activities are not left solely in the hands of the so-called "super-planners" (who may direct them unwittingly into fruitless channels), we who have the knowledge and the responsibility in this field of public health must accept the challenge and begin now to take a part in the planning. We have the vigor, the vision, and the knowledge to take the initiative, and I believe that management and labor alike will welcome our taking our rightful place. There is no doubt in my mind that we will be able to meet the new challenge and solve it even as we are solving many problems today. We have been able to do this because we have built our entire wartime industrial hygiene program in this nation, not as a temporary expedient but on a firm and solid foundation. Much credit for this type of planning and organization is due to the foresight of all the professions that have worked for the advancement of industrial health.

ABSTRACT: FIND SULFONAMIDES OF DISTINCT VALUE IN TREATING BACILLARY DYSENTERY

From a study of twenty-eight cases of acute bacillary dysentery, C. J. Smyth, M.D.; M. B. Finkelstein, M.D.; S. E. Gould, M.D., Eloise, Mich.; T. M. Koppa, M.D., and F. S. Leeder, M.D., Lansing, Mich., report in *The Journal of the American Medical Association* for April 24 that both sulfaguanidine and succinylsulfathiazole are of distinct value in the treatment of this disease. Because the newer sulfonamide compound, succinylsulfathiazole, "is equally effective," the authors say, "and because it is without the potential toxic effects of sulfaguanidine, we believe that it is the drug of choice in the treatment of acute bacillary dysentery (Flexner). . . ."

In the introduction to their paper the five physicians point out that "The control of acute bacillary dysentery is becoming increasingly important because of the presence of troops in tropical regions where this disease is common and also because of the poor housing and sanitary conditions which inevitably result from the mass shifting of civilian populations. During the past year numerous reports of the high incidence of this disease have come from the nations long at war; namely, China, Russia, Japan, Germany and Italy. . . ."

From their study the authors report that they consider that succinylsulfathiazole given in specified doses daily for at least six consecutive days was adequate to effect a cure in 12 of 14, or 85 per cent of their cases. "We observed," they say, "that doses of twice this amount may be administered without untoward reactions and it is suggested that if fever and diarrhea are not controlled after three days of therapy with the smaller doses twice the amount of the original dose be given.

"We wish to stress the importance of repeated stool cultures for at least three weeks after therapy has been discontinued. Although the final decision regarding the value of succinylsulfathiazole will require further clinical use, the results of this study indicate that it is a definite advance in the treatment of this important enteric disease and may prove to be of great value in the treatment of other types of bacillary dysentery."

ORGANIZATION OF MEDICAL SERVICES IN INDUSTRY*

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Although the history of industrial accidents and many occupational diseases goes back many centuries, yet the actual development of this specialty field has occurred during the past three or four decades. Many of the pioneers in this field are still alive and many are very active in this work.

The practice of industrial medicine and surgery is difficult to define and to limit, but principally it is the practice of the best-known medical, surgical, preventive and public health measures as it applies to the worker in industry, especially as it is modified by the employer-employee relationship and responsibility. The successful practice of this specialty is by no means simple and easy. In the usual relationship of private patient and physician, the patient selects his own physician, has unlimited confidence in the doctor, and is easily satisfied by whatever the doctor does or recommends, and then pays for this treatment himself.

On the other hand, the patients who come to the plant or company industrial physician and surgeon are sent by someone in the organization to a doctor who is usually not previously known to the patient nor his friends or relatives. He frequently comes with a chip on his shoulder and with the illusion that the company physician is there primarily as a company representative. He suspects an unfair grade of service, perhaps biased and not to his best welfare, and as so many patients put it, "simply to get him on the job in the shortest possible time at the least expense to the company." Fortunately, these erroneous ideas are being rapidly dispensed by the quality, character and ability of the present-day industrial medical specialist.

Add to this picture of the industrial patient the conversations, conferences and interviews of the employees, his family, wife, children, aunts, uncles, parents, distant relatives, and even neighbors. They all want to know what is being done for the patient and have their own ideas as to what are the proper procedures. Then add to this the doubts, the uncertainty and confusion brought about by having the family physician consulted as to what should be done and you really have an idea of the mental attitude of patients that are sent to company physicians. Again add to these the problems of temporary total disability compensation payments, and the question of claims for permanent disability. It is really amazing that we are able to get as many of our patients well as we do.

Our task as industrial physicians and surgeons requires the best possible medical service because our work is checked up from every possible angle. Another thing that plays a part in this setting is the fact that the employer pays the expenses for hospital, medical and nursing services, and frequently these services are not appreciated to the same extent that they would be if the patient had to pay for them himself. So, we must take our hats off to the work and daily accomplishments of the industrial physicians and surgeons. Their task is not easy. They must be detailed in their history-taking, meticulous and thorough in their examinations, accurate in their diagnoses, and tactful in all their procedures to the nth degree. That the employing company or insurance carrier is satisfied with their work is just a coincidental accomplishment.

The problem as to just what constitutes a reasonable or satisfactory medical service depends a great deal upon the size of the plant, the nature of the work that is being done there, and the attitude and policies of the executives of the organizations. Originally the treatment of industrial accidents in the plant constituted the only medical service. The minor injuries were treated by the first-aid man and by a physician who was on call when needed, or who at times rendered a short-time sick call service at the plant. From this meager beginning grew the full-bloom, complete medical departments now observed in some of our larger plants. As early as 1917 the National Industrial Conference Board investigated health supervision in industry, even then studying its organization, setup, and costs. The first report was rendered in 1926, and a more complete report entitled "Medical Supervision and Service in Industry" was submitted in 1931. The advent of the workmen's compensation laws, and more recently occupational disease laws, have stimulated the development of adequate medical departments and medical services. Early in 1942, 1,834 industrial establishments, reporting 6,500,000 employees, had been surveyed by the American College of Surgeons, and 52 per cent were approved as having met their minimum standards.

Dr. W. Irving Clark stated in the November, 1942, issue of *Industrial Medicine*, page 511, as follows:

"A complete health service in industry comprises three fields of effort: industrial hygiene, industrial practice and industrial toxicology.

"Industrial hygiene studies and endeavors to control those general factors of the workers' environment which are unfavorable to health.

"Industrial medical practice studies the prevention of accident and of disease among the workers, diagnoses disease, and both diagnoses and treats industrial accidents. Its chief function is medical supervision of the employees.

* Presented before Indiana's Industrial Health Conference, at Indianapolis, on February 25, 1943.

"Industrial toxicology studies, endeavors to prevent, and in some cases treats cases of poisoning occurring among workers exposed to toxic products in manufacturing.

"These three functions are the work of the industrial medical department. . . . .

"From this it will be seen that a factory is really a community of workers, and that the industrial medical department has as its duty the preservation of health, the study of disease, and the treatment of accident within its boundaries.

"While short excursions into the wilderness beyond are occasionally necessary, these are merely exceptions which prove the rule that industrial medicine is practiced in the factory among its workers—and only in the factory. Thus there is a definite line drawn between the factory community and the general community outside the factory walls. When, as is sometimes the case, the factory, like the old feudal castle, dominates the community and through its industrial medical department provides full medical care not only for its employees at their homes but occasionally for their families as well, it is not providing industrial but community medicine. . . . ."

From purely curative treatment of industrial accident injuries these departments have grown to include pre-employment, or better termed "preplacement" examinations, and first aid in illnesses occurring while the employee is on duty in the plant. Then, as the value of the service was appreciated by employees the management conferences and interviews on various personal health problems stimulated better diagnostic facilities, with the advent of laboratories, x-ray facilities, and such services as electrocardiography and metabolism rate studies. The industrial nurse has been working up to this time with a part-time or full-time plant physician, and she also has conducted inquiries into the nature and extent of absenteeism due to illness.

Dr. Sappington states, "The fundamental point in securing co-operation from employees is the creation of an active health interest among them. . . . . As a corollary to the principle of health reminders, employees should be encouraged in every way to patronize the industrial dispensary. Formerly it was thought that when the number of calls at the dispensary was low per person per year, the health of the group was good; it is now known that this is not true, because when the number of dispensary calls per person is relatively high one is fairly sure that employees are taking thought concerning personal health and are acting accordingly by presenting themselves even when the indisposition is very slight. A successful dispensary service is characterized by a high dispensary call rate, when the employees are availing themselves of the opportunity to get well and keep well.

"Experience has proved in many instances that the co-operation of the employee may be secured more easily by offering the various health services as optional privileges, emphasizing that the company takes a sincere interest in the health of the employee, and by avoiding paternalism through the administration of a sane and intelligent health service. Nothing will create more loyalty on the part of the employee than an industrial health service which promotes greater continuity of employment and consequently better economic stability.

"The most important basis for an adequate industrial health service is confidence. Confidence is a real service which provides practical help against ill health, sickness, and incapacity; confidence that the personal rights of employees will be preserved; and confidence that the management is sincere in its attempt to raise the standard of health and keep it high. Nothing instills greater confidence than participation by the supervisors, managers, foremen, and others in executive capacities in every angle of the health service which is offered. Industrial executives can do no better than to set an example by having periodic re-examinations, having physical defects corrected, and seeing to it that their minor indispositions are checked before they become major problems. If the quality of the service rendered is such that its industrial executives will themselves participate in it and recommend it to their employees by examples, it is obvious that most of the employees will themselves participate without question or doubt as to the value of the service."

The relative place of the medical department in an organization setup is important. It is of paramount importance that the medical director be responsible directly to the executive department. It is true that there are good and excellently functioning medical departments set up under a personnel division, but their success speaks well for the vision and broadmindedness of such a personnel officer. Medical departments should not, in my opinion, be placed under the employment officer, casualty department, or plant superintendent. The medical department should be responsible directly to the general manager or even a higher official. It is unfortunate to have the running of an industrial medical service stymied or nullified by some inferior official or layman who does not recognize the value of a complete medical service. This is no place to be penny-wise and dollar-foolish.

The cost of medical industrial service is again dependent upon the character and nature of the business, its industrial health hazards, accidental injuries, and the amount of medical service rendered. For a manufacturing concern of one thousand employees this current expense will run from five hundred to one thousand dollars a month with a full time physician, a nurse, supplies and supplementary service. Part-time services are available for small plants in some communities, with an estimated cost of one hundred dollars per month per one hundred employees. There are many elaborate studies on the cost figures, and they vary greatly. In these times of high wages, due to scarcity of available physicians and nurses, it is perhaps better not to state any definite anticipated cost or salaries.

CERTIFICATION

In the development of the specialty of industrial medicine and surgery, it has become desirable to recognize the qualifications of these specialists on the same basis that other specialists are recognized. A movement is on foot for the establishment of an American Board of Physicians and Surgeons in Industry to certify the men proficient in this specialty. One of the main objects of such certification is to induce the younger, outstanding graduates in medicine to enter this most fascinating field and to take on this specialty as a life-work career. The Advisory Board for Medical Specialists now has this problem under consideration.

Following is an abstract of an article published in *Industrial Medicine*, Vol. 11, No. 2, p. 79, (Feb.) 1942.

INDUSTRIAL ESTABLISHMENTS CONDUCTING MEDICAL SERVICES WHICH ARE APPROVED BY THE AMERICAN COLLEGE OF SURGEONS

The need for better organization and service in caring for the ill and injured in industry and for the elimination or control of industrial health hazards was early recognized by the American College of Surgeons. In 1926 the Committee on Industrial Medicine and Traumatic Surgery, which consisted of representatives of the college, of medical departments of insurance carriers, and of other industrial organizations was appointed for the purpose of studying and improving this situation.

Based upon experience and the findings of direct investigations, the Committee on Industrial Medicine and Traumatic Surgery formulated a minimum standard for medical service in industry, which is applicable to all industrial organizations regardless of their size. Acceptance and maintenance of the minimum standard in its true spirit is entirely voluntary on the part of an industrial organization. However, since the essential features of an adequate industrial medical and surgical service are embodied in the minimum standard it is readily apparent that compliance therewith will be to the advantage of both employer and employee.

The practical application of this standard was begun by the college in 1931, by making personal surveys of industrial medical services on a nationwide basis, and the first list of approved medical services was published in 1933. To date 1,834 industrial establishments, representing approximately 6,500,000 employes, have been surveyed, of which number 959, or 52 per cent, have been fully or provisionally approved.

At the Clinical Congress of the American College of Surgeons held in October of each year public announcement is made of the approved medical services in industry and the list is published. It is realized that there are medical services recently organized and others that are worthy of recognition, but of which time has not yet permitted a survey. Many requests for information and surveys are received by the college, with which there is compliance without expense to industry. The surveys are arranged, of course, in as orderly procedure as possible, to include a large group of industrial organizations in a region in order to reduce expense and duplication of travel.

It is realized that small industrial organizations or plants do not require as extensive medical facilities as the larger ones. Nevertheless, the principle implied in the minimum standard for medical service in industry applies to both large and small plants. The type of medical deartment and the scope of the service may be adjusted to meet the needs of the establishment, but in general an adequate industrial medical service requires that proper provisions be made in order to render the best service. These have also been established by the American College of Surgeons.

Abstract of an article published in the March 13 Issue of the *Journal of the American Medical Association*, Vol. 121, No. 11, p. 820.

HOW TO GET ALONG WITH LESS HELP

1. Legitimate shortcuts to routine service.
2. Can we secure and train technical assistants for certain routine industrial health procedures?

In these wartimes, among the many problems confronting us in the practice of industrial medicine and surgery is the necessity of doing *more work* in less time and with less help. The very rapid expansion of some of our industries has placed tremendous demands on the medical profession. Not only has the actual enlistment of trained industrial medical personnel depleted our forces, but the young physicians and surgeons completing their internships and residencies, who would normally be part-time medical members in industry from two to five years or more, are taken into military service immediately on completion of their internships.

What legitimate shortcuts may be devised in our routine services?

First, the necessity for adequate, up-to-date equipment. Good light, adequate ventilation, pleasant surroundings and proper physical equipment are the least that industry should provide for their medical departments.

Second, the industrial physician and surgeon should devise improved methods of treatment. Have sets of instruments, syringes, eye spuds, et cetera, sterilized and ready for immediate use, so when necessity arises all that needs to be done is to open up the sterile towel and package and proceed immediately.

Third, simplified records are very definitely in order.

Fourth, effort should be made to avoid unnecessary pre-employment examinations. Rapid turnover in labor has been a serious problem in these times. An endeavor should be made to apply our efforts and work where they are most needed and where they will produce the greatest results.

Fifth, many examiners are suggesting a simplified form of preplacement examinations. Such ex-

aminations are all simple procedures that can legitimately be handled by any nurse under proper medical supervision. Only those with abnormal findings need be referred to the physician for study and decision.

Can we secure and train technical assistants for certain routine industrial health procedures?

This, I would say, goes beyond the graduate nurse assistant and brings up the question of certain duties and functions that can be delegated to persons with special training and qualifications, but without the advantage of a physician's or nurse's training. Nearly all of our pathological and clinical laboratory workers fall into this classification, such medical technicians doing blood counts, urinalyses, blood chemistry determinations, serology and other types of laboratory work. Their training should meet certain minimum standards, and schools training such technicians should meet an approved standard listing. The American Society of Clinical Pathologists organized a registry of medical technicians in 1928, and this registry has done much to raise and maintain the quality of the medical technicians.

Other medical technicians recognized as auxiliary in the practice of medicine are those trained in x-ray, physical therapy, occupational therapy, hydrotherapy, dietetics, anesthesia, and many other forms of medical technicians.

The important thing is that medical technicians, in whatever field of endeavor they wish to become proficient, should have the specialized training considered desirable. We have lists of approved schools for chemical laboratory technicians, x-ray technicians, physical therapy and occupational therapy technicians, and there are possibly others. Might it be possible to set up standards of training and instruction for medical technicians or technical aids to physicians and surgeons in industry? Studies might be carried out to devise various types of aptitude tests and personnel and psychological screening tests for the selection of those most likely to succeed. It is a field well worth exploring.

What type of work and duties might such technical aids and assistants do?

First, they must have adequate medical supervision at all times, and must not diagnose nor treat ill or injured patients. They can be trained to competently take medical histories of illnesses and injuries for review by the examining physician. Heights, weights, simple inspections, color vision tests, urine tests, even respiration and pulse rates might come within the scope of their endeavor. The individual capabilities and proficiencies will vary so much that the amount and type of work will have to be delegated by the responsible physician. There are many duties for such technical physicians' and nurses' aids in industrial medical departments, such as supervising and maintaining equipment; doing the secretarial and clerical work; giving certain types of health instruction; chaperoning of women workers during examinations; inspecting lunch rooms and doing general plant housekeeping—all can be done efficiently and properly by such workers.

As the war effort expands, taking more and more physicians and nurses, the shortage promises to become more acute in all industries and all localities. With the safeguard and precaution that all their services be properly delegated and supervised by the responsible physicians and nurses, it seems that the judicious use of technical physicians' and nurses' aids offers the best solution for supplementing the shortage of physicians and nurses which has occurred in many localities.

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FATALITY FOLLOWING NEOARSPHENAMINE THERAPY

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T. L. D. was reported to the Evansville Venereal Clinic by the Indiana State Board of Health as a selectee with positive serology. He was notified and made his first appearance at the clinic on June 30, 1942, in an intoxicated condition. He was quarantined in the Vanderburgh County Jail until the next day, July 1, when a specimen of blood was drawn for another test and he was released from quarantine. The laboratory of the Indiana State Board of Health reported that this test showed a four plus Wassermann, Kahn, Kline and Mazzini.

He reported at the clinic for treatment on July 22. The history showed that he was a white male with dark brown hair, thirty-nine years of age, unmarried, and weighing 155 pounds. No history as to time of luetic infection was obtainable. No pathology of the circulatory, respiratory or nervous systems was noted. On this date (July 22) he received 0.45 Gm. neoarsphenamine. On July 29 a similar dose was given.

He was the fifteenth male patient to register for treatment during the afternoon session on August 5, and was probably treated in that sequence. He was given 0.45 Gm. neoarsphenamine and left the clinic at approximately 1:37 P.M. The patient who followed him on the treatment table returned and reported that T. L. D. was sick in the lobby

on the first floor of the building. He was found seated in a chair, expectorating a bloody-tinged sputum of frothy consistency and complaining of difficulty in breathing. He was immediately given 1 cc. of adrenalin chloride (1 to 1000 solution) and removed to a local hospital in a police car that was available. At the hospital he was able to walk from the car to the emergency room, where he was administered the following therapy in successive dosage: coramine, 1 ampule; morphine ¼ gr., atropine 1/150, camphor in oil, 1 cc., and adrenalin chloride (1 to 1000) 1 cc. An aspirator was used in an attempt to clear the respiratory passages and artificial respiration instituted. Death occurred at 2:20 P.M., approximately forty-three minutes subsequent to the arsenical treatment.

Autopsy was performed by A. W. Ratcliffe, M.D. at 4:15, on order of the coroner at our request. A complete examination was made of all organs, but in the interest of saving space only those showing changes will be included in this report.

Lungs: Estimated to weigh 500 grams each. The tissue was subnormally crepitant throughout. Fluid dripped from the cut surface. The pulmonary arteries showed no obstruction or lesion. The bronchi were filled with gray, foamy fluid with only a slight bloody tinge.

Heart: Myocardium showed normal coloration, with only one or two minute grey areas found; the tricuspid, pulmonary and mitral valves showed no lesion. The aorta exhibited slight commissural adhesions. Both coronary arteries were patent and apparently unobstructed although sclerotic plaques were demonstrated in one of the branches. There was no significant change in size or weight.

Stomach: Moderately distended, but not greatly enlarged by gas; otherwise it contained only a few cc. of fluid and partially digested food. The mucosa showed no lesion. Contents were without distinctive odor of hydrochloric acid or alcohol. No blood was discovered within the stomach. All other findings were essentially negative.

In a resumé of other facts pertinent to this case the following may be presented:

At the time of the first treatment the patient was given a copy of instructions relative to conduct while taking treatment, one of which is the prohibition of alcohol. This copy was found on his person by the coroner. No odor of alcohol was noticed at the time of treatment, and none was detected in the stomach contents at autopsy.

Treatment technique: Two ampules of neoarsphenamine, 4.5 grams, were mixed in 200 cc. of distilled water immediately previous to the starting of the treatment session. This solution was used in 10 cc. dosage, twenty 10 cc. syringes being filled and treatment started. The time of starting treatment was approximately 1:25 P.M. Two operators were working. This patient was the fifteenth patient to register, and since the patients were called in order of registration it is safe to assume that he was treated in that sequence. None of the other nineteen patients receiving treatment from the same mixture developed reactions while at the clinic, nor were any reported as occurring later. This fact would seem to exclude any blame for this particular reaction being due to deterioration of the drug in a single ampule. A total of 310 treatments were given on this date, using drug of the same lot number with but two other reactions of the late gastric type being reported. These were not severe in character.

In order to eliminate breaks in technique in distillation, sterilization, mixing and handling, a total of 290 patients were given 10 cc. of distilled water alone, prepared and administered under as nearly similar conditions as was possible to do so. Not a single reaction of any type was reported.

Conclusions: Since nineteen other patients were treated from the identical mixture, the possible deterioration of the drug in a single ampule, or mixing error, would appear to be excluded as there were no other reactions reported. In addition, 290 more treatments with but two mild gastric reactions would apparently exclude toxicity in that particular lot of drug. Two hundred and ninety injections of water alone would seem to prove that there was no water impurity.

Autopsy findings proved that death was due to pulmonary edema and this, added to the fact that this reaction occurred after the third treatment, would indicate that this was a case of arsenic sensitization with anaphylactoid reaction.

ABSTRACT: POINTS TO THE ENCOURAGING OUTLOOK IN FIELD OF VIRUS RESEARCH

"The opportunities for research in the field of the viruses grow daily more numerous; the results promise vast benefit to mankind," *The Journal of the American Medical Association* for April 24 says in an editorial citing some examples of recent progress in virus research.

The Journal points to a report just issued of the discovery of a new virus which causes a noncancerous tumor-like growth on the membrane lining of the mouth of the domestic rabbit, mainly situated on the underside of the tongue. Among other examples cited by *The Journal* of recent developments in this field are those pertaining to the influenza A virus which appears to be one of the smallest specific agents so far isolated; the obtaining of the virus of epidemic infantile paralysis in purified and concentrated form, and the isolation and identification of a filtrable virus believed to be responsible for the epidemic eye disease of shipyard workers that has been attracting nation-wide attention recently.

"These examples of recent research on viruses," *The Journal* says, "are not intended as an exhaustive review; they are more or less random selections which show that the study of pathogenic filtrable viruses continues to give results of scientific and practical value."

BRUCELLOSIS

A Report of fifty-three cases, with an Introductory Report on Intradermal Vaccine Therapy

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MENTONE

In the preface to his excellent monograph on brucellosis Harris[1] tells of his early experiences with the disease. He was practising in a small town, in 1932, and discovered two cases of brucellosis in young farm laborers. Both of these men had been ill for several years. They responded quickly to proper therapy, and this caused him to come to the conclusion that in the eleven years of his practice he had "overlooked scores of cases of brucellosis." It is a damning commentary on medicine that chronic brucellosis is just beginning to be generally recognized, properly diagnosed, and treated. In many medical schools the chronic phase of the disease is either overlooked or mentioned briefly in passing. Perhaps this is due to the fact that a large portion of the clinical work done in various diseases covers only urban population, where, because of milk pasteurization, brucellosis, either acute or chronic, is a relative rarity. However, to the thousands of doctors practising in rural districts or in towns where pasteurization of milk is not legally required, this disease must always be considered in diagnosing chronic illness.

In 1939 a middle-aged woman came to me complaining of tiredness, weakness, and anemia of at least five years' duration. Her blood picture was that of a primary anemia, and for some time she was treated on that basis. Failure to respond to adequate doses of liver extract made us look further for a diagnosis. Remembering that macrocytic leukopenic anemia was sometimes found in brucellosis, I did a skin test on this patient; found her to have a highly positive reaction to Brucella abortus vaccine, and gave her a course of therapy. Her improvement was so marked that we began to investigate the other patients with similar complaints who were failing to respond to whatever therapy they were on at that time.

CLINICAL MATERIAL COVERED

For skin tests I use 0.1 cc. of a 1-5 dilution of stock vaccine containing one thousand million each Brucella abortus and Brucella suis organisms per cc. One hundred twenty-four patients with suggestive histories have been tested. Of these, 70 (56.4 per cent) gave positive reactions. Of this group of 70, 51 (41.2 per cent of the entire group) were considered to have active brucellosis. In addition, two of the group which showed negative skin reactions were also treated as active cases. In all, 53 patients (42.8 per cent of the entire group tested) were given treatment for brucellosis. This incidence of positive skin reactions compares favorably with statistics reported from other sections of the country. Kirby and Rantz[2] report 36 per cent positive skin tests in 50 cases. Goss[3] found 52 positives among 280 patients tested. Gould and Huddleson[4] had 10 per cent positives in 8,124 cases tested in a state hospital. Manchester[5] showed 38 per cent positives. Foshay[6] shows the remarkable variation in positive tests in various parts of the country in reporting work which he and Dr. R. M. Calder did. Working in Cincinnati, Foshay found 8 per cent active undulant fever cases in 100 patients tested, while Calder, in San Antonio, found 91 per cent positive in a similar group of 100.

The two cases which were considered as having undulant fever without a positive skin test brings up an interesting point. Although Huddleson[7] feels that the skin test is very rarely negative in the presence of brucella infection, other workers have shown different results. Calder[8] found 13.4 per cent of his cases with a negative skin test. Robinson and Evans[9] reported that in five patients with a positive blood culture only one had a positive skin test. In another series Evans[10] and her co-workers found that 39 per cent of the active cases they studied had negative skin tests. In my own series less than 4 per cent were so considered.

The average size of the skin test reaction was 25 mm. Induration was present in almost every instance. In four of them the local response was so great that abscesses developed. These were small affairs and healed quickly, however. Lymphangitis was present in two cases, and axillary lymphadenopathy developed in one. The size of the

[1] Harris, H. J.: Brucellosis, Paul J. Hoeber, Inc., 1941.

[2] Kirby, W. M. M., and Rantz, L. A.: The Agglutinin Response of Normal Persons to Skin Tests with Brucellergin and Brucella Vaccine, *J. Lab. & Clin. Med.* **27**:1244 (July) 1942.

[3] Goss: Chronic Brucellosis, *Northwest Medicine*, **40**:419-423, (Nov.) 1941.

[4] Gould, E. F., and Huddleson, I. F.: Diagnostic Methods in Brucellosis, *J.A.M.A.*, **109**:1971-1974, (Dec. 11) 1937.

[5] Manchester, R. C.: The Clinical Manifestations and Diagnosis of Chronic Brucellosis, *Ann. Int. Med.* **16**:950-965, (May) 1942.

[6] Foshay, Lee: Laboratory Diagnosis of Undulant Fever, *Amer. J. Clin. Path.*, **10**:176-187, (Feb.) 1940.

[7] Huddleson, I. F.: Brucella Infection in Animals and Man, Commonwealth Fund, 1943.

[8] Calder, R. M.: Chronic Brucellosis, *So. Med. J.*, **32**:451, (May) 1939.

[9] Robinson, F. H., and Evans, A. C.: Chronic Brucellosis in Charlotte, North Carolina, *J.A.M.A.*, **113**:201-206, (July 15) 1939.

[10] Evans, A. C.; Robinson, F. H., and Baumgartner, L.: Evaluation of Diagnostic Laboratory Tests in Chronic Brucellosis, *U. S. Pub. Health Rep.*, **53**:1507, (Aug. 26) 1938.

skin test reaction varied from 3 mm. to 85 mm. Huddleston feels, in using his brucellergen, that redness alone is not a sufficient indication of infection. In this series, using vaccine rather than brucellergen, only two cases were noted in which redness of 5 mm. or more was present without induration after forty-eight hours.

Of the active cases twenty-nine were males and twenty-four were females. Their ages ranged from nine to sixty-nine, with an average of forty-one.

EPIDEMIOLOGY

All of the patients in this series had consumed raw milk most of their lives. Of the fifty-three active cases, twelve (23 per cent) gave a definite history of having consumed milk from cows with Bang's disease. Inasmuch as contagious abortion is so common in cattle in this territory, this percentage is probably not as high as might actually be found if investigation had been more thorough regarding that point. Several people said that they had had cows which aborted but had not been tested. It was of interest that in one active case the entire milk source herd was tested and found negative. There had, however, been ample possibility for exposure from other sources.

PAST HISTORY

In this series twenty-three (43 per cent) gave a past history of acute febrile illness suggestive of brucella infection, but not diagnosed as such. This incidence is somewhat higher than reported in other series. Simpson[11] reports less than 10 per cent with acute febrile illness. One case in our series gave a definite history of having had undulant fever ten years previously.

DURATION OF SYMPTOMS

Five of the cases were acute illnesses, and in those the average duration of disease before coming for treatment was ten weeks. This illustrates the fact that even in the acute disease with fever, sweating, and generalized aching, the symptoms may be relatively mild so that the patient does not present himself immediately for therapy.

In forty-six of the forty-eight chronic cases, the average duration of symptoms before diagnosis was three years and eight months. The extreme chronicity of the disease is well illustrated by that figure. In one case illness had been present for seventeen years following an acute febrile disease of unknown etiology. Response to vaccine in this case was so dramatic and complete that no doubt could be cast upon the diagnosis.

SYMPTOMATOLOGY

In the acute cases symptomatology was characteristic. The patients presented themselves with fever of several weeks' duration, accompanied by mild anorexia, headache, generalized aching, profuse perspiration at night and tiredness.

In the chronic cases, symptomatology was diverse. It may be best to tabulate it in the following table:

Tiredness	75%
Weakness	34%
Bloating	26%
Nervousness and irritability	25%
Fever	25%
Headache	23%
Weight loss	23%
Constipation	23%
Chest pain	19%
Palpitation	17%
Fever (in chronic cases)	16%
Cough	11%
Dyspnea	10%
Generalized aching	10%
Vertigo	8%
Nausea	8%
Abdominal pain	6%
Anorexia	6%
Paresthesias	4%
Vomiting	4%
Cervical adenitis	4%
Insomnia	4%
Belching	4%
Stomatitis	4%
Arthritic pains	4%
Sore throat	4%
Backache	4%
Anemia (as a complaint)	4%

Also encountered in individual cases were generalized macular rash, chilliness, mental depression, jaundice, and fainting attacks. There was diminution of sexual desire in three cases (6 per cent).

These symptoms are essentially the same as those listed by other investigators. The prominence of any one symptom in a given series of cases seems to depend somewhat upon the approach of the author. Davis[12] feels that chest pain, particularly anterior left chest pain, is a common finding. Manchester[5] and Calder[8] found tiredness and weakness to be predominant. Manchester also found bone and joint aching to be very prominent in his series. Hartsock[13] pointed out tiredness, easy fatigability and generalized aching as the three most prominent complaints.

In analyzing these symptoms it may be seen that the prominent ones can be grouped roughly into: (1) generalized symptoms, such as tiredness, weight loss, et cetera; (2) gastro-intestinal symptoms, such as bloating, belching and nausea; (3) nervous system manifestations, such as depression, irritability, and nervousness; and (4) cardio-respiratory symptoms, namely, chest pain, palpitation, cough, and dyspnea. The percentage of patients specifically complaining of fever was surprisingly high even when the 5 acute cases are not considered. Weight loss was also found more prominently than was anticipated.

It is easy to see, with these symptoms, why tuberculosis is often considered in the differential diag-

[11] Simpson, Walter M.: Diagnosis and Management of Brucellosis, *Annals of Int. Med.*, **15**:408-430, (Sept.) 1941.

[12] Davis, Neal: Chronic Brucellosis, *J. Ind. State Med. Assoc.*, **35**:459, (Sept.) 1942.

[13] Hartsock, C. L.: Diagnosis and Treatment of Brucellosis, *Cleveland Clinic Quarterly*, **9**:22, (Jan.) 1942.

nosis. Johnson,[14] Bogart,[15] Paretsky,[16] Martin,[17] Lafferty,[18] and Beatty[19] have all pointed out the similarity between tuberculosis and brucellosis in many cases. Tuberculin tests were done on eleven of our cases, with a positive reaction in four. In two of these there was prominent enlargement of the hilus areas, but in none of them did x-ray show active tuberculous involvement.

No effort has been made in this series to discover a possible connection between human abortion and infection with brucella organisms. Harkinson,[20] Calder,[8] Carpenter and Boak,[21] Deforest,[22] and Kristensen and Holm[23] have all pointed out this possibility and have reported various proofs thereof. However, no extended series has been reported on this phase of the subject.

Calder has reported a high incidence of nervous complications. DeJong[24] reviews eleven cases of brucellosis meningitis.

The percentage of arthritic or rheumatic complaints was very low in my series as compared to others. Manchester found 54 per cent with such symptoms. Green and Freyberg[25] felt that chronic arthritis never resulted from brucellosis, although acute arthritic changes were common.

Huddleson, Johnson, and Beattie[26] found the acute form of the disease very rare in children, but felt that the chronic type was more common. Pray,[27] Dietrich and Bonynge,[28] and Anderson and Pohl[29]—all report the chronic form in children. In this series only two cases were found in children, one acute and one chronic.

LABORATORY DIAGNOSIS

The importance of the various diagnostic tests in chronic brucellosis has been reviewed in a previous paper.[30] Because my own clinical study of brucellosis was quite haphazard at first, the following figures often do not represent all of the cases. (In several of the cases no agglutination tests were done. The opsonophagocytic test was not done in any of them.) This criticism applies to all of the procedures. However, we now have a definite method and are equipped to do all the routine tests. Each patient now has blood taken for agglutination, complete count, sedimentation rate, volume index and opsonophagocytic index before any skin tests are done. After the skin test the patient has follow-up blood studies at regular intervals. I have had a printer prepare a form for recording all this data, including therapy and symptoms, on a single 8½ x 11 sheet. This has made treatment and diagnosis simpler, as well as simplifying recording of data for study.

Evans,[10] Calder[31] and Evans[32] have reviewed the laboratory findings in larger series.

Twenty-one of our group of fifty-three had agglutination tests taken before skin tests were done. Of these, three (14 per cent) showed a positive agglutination for Brucella abortus. Of eighteen who had tests made after completion of therapy, thirteen (72 per cent) were positive in a titre varying from 1:20 to 1:160. Gersh,[33] Gould and Huddleson,[4] and many others have pointed out the low incidence of positive agglutination reactions in the presence of a positive skin test. This emphasizes the error so commonly made, of using the agglutination test as the only diagnostic test for brucellosis.

In this series the average hemoglobin before treatment was 79 per cent; after treatment 83 per cent. The average red count before treatment was 4,100,000; after, 4,500,000. The white count before treatment was 8,100; after, 7,200. The sedimentation rate before treatment was 14; after, 9 (Wintrobe method).

The average differential before therapy was 58 per cent polys and 38 per cent lymphs. Twenty per cent of the series had over 50 per cent lymphocytes and 33 per cent had over 40 per cent.

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[14] Johnson, R. M.: Pneumonia in Undulant Fever: Report of Three Cases, *Am. J. Med. Sci.*, **189**:483, 1935.

[15] Bogart, F. B.: Pulmonary Changes in Undulant Fever, *So. Med. J.*, **29**:1, 1936.

[16] Paretsky, M.: Pulmonary Changes in Undulant Fever Suggesting Pulmonary Tuberculosis, *Med. Rec.* **144**:11, 1936.

[17] Martin, Wm. S.: The Mediastinal Glands in Undulant Fever, *J. Mich. State Med. Assoc.*, **41**:1051, (Dec.) 1942.

[18] Lafferty, R. H., and Phillips, C. C.: Pulmonary Changes in Patients Suffering from Undulant Fever, *So. Med. J.*, **30**:595, 1937.

[19] Beatty, O. A.: Manifestations of Undulant Fever in Respiratory Trace, *Am. Rev. Tbs.*, **36**:283, 1937.

[20] Harkinson, J. E.: Undulant Fever in California, *Ann. Int. Med.*, **4**:484, 1930.

[21] Carpenter, C. M., and Boak, R.: Isolation of Brucella Abortus from a Human Fetus, *J.A.M.A.*, **96**:1212, 1931.

[22] Deforest, H. P.: Infectious Abortion of Cattle as a Complication of Pregancy in Women, *Am. J. Obst. & Dis. of Women & Childr.*, **76**:221, 1917.

[23] Kristensen, M., and Holm, P.: Bacteriologic and Statistical Investigations on Undulant Fever in Denmark, *Zentralbl. f. Bakt.*, **112**:281, 1929.

[24] DeJong, R. N.: Central Nervous System Involvement in Undulant Fever, with Report of a Case and Review of the Literature, *J. Nerv. and Ment. Dis.*, **83**:430, 1936.

[25] Green, M. E., and Freyberg, R. H.: The Incidence of Brucellosis in Patients with Rheumatic Disease, *Am. J. Med. Sci.*, **201**:495, 1941.

[26] Huddleson, I. F.; Johnson, H. W., and Beattie, C. P.: Undulant Fever: A Report of One Hundred Cases Treated with Brucellin, *Technical Bull. No. 149*, Mich. Ag. Exp. Sta., pp. 35-51, 1939.

[27] Pray, R. E.: Undulant Fever in Children, *Lancet*, **51**:531-537, 1931.

[28] Dietrich, H., and Bonynge, C. W.: Undulant Fever in Children, *J. Ped.*, **1**:46-57, 1932.

[29] Anderson, E. D., and Pohl, J. F.: Undulant Fever in Children, Report of Three Cases, *Am. J. Dis. Children*, **42**:1103-1108 (Nov.) 1931.

[30] Urschel, D. L.: Diagnosis of Chronic Brucellosis, *J. Ind. State Med. Assn.*, **26**:59-63 (Feb.) 1943.

[31] Calder, et al.: Blood Studies in Brucellosis, *J.A.M.A.*, **112**:1893-1898, (May 13) 1939.

[32] Evans, A. C.: (1) Studies on Chronic Brucellosis. (2) Description of Techniques for Specific Tests, *Public Health Reports*, **52**:9, 1937.

[33] Gersh, I., and Mugrage, E. R.: The Incidence of Positive Immunologic Reactions for Undulant Fever, *J. Lab. & Clin. Med.*, **23**:918-921, 1938.

Of particular interest was the hematocrit reading which showed an average of 49.9 before therapy and 49.3 afterwards. The normal by this method is 42 for women and 47 for men. This increased volume of packed red cells illustrates the macrocytosis, which is relatively common in brucellosis.

METHODS OF THERAPY

To many of us chronic brucellosis might be described as a disease in which symptoms were vague, diagnosis was more vague, and treatment was most vague. This may not be true, but it does illustrate the attitude of a great many doctors toward the disease. Many different agents have been used in treatment. The sulfonamides have received much investigation and a certain amount of enthusiasm.[1, 11, 34, 35, 36] Almost all of these reports are based on short series, usually on acute cases. The work has not been of sufficient duration to be statistically significant. I have treated one case with sulfathiazole with fair clinical improvement.

There has been considerable disagreement as to methods of using specific therapy. Huddleson originated his brucellin, which is a broth filtrate prepared from brucella organisms, and it has been widely used. Various preparations of stock vaccine have been tried. Lee Foshay has prepared antiserums, developing them by means of detoxified brucella antigens. In most of the original work done in this field, it was felt that sharp febrile responses were necessary in order to effect a cure. To get this fever the specific agent was given in frequent large doses, and the patient was subjected to a series of at least four sharp febrile reactions. This method of therapy was quite efficient in treatment of acute cases, but often failed in the chronic ones. Very large doses had to be given in order to produce a febrile response. In many cases this response could not be reached or, if it did come, was accompanied by no alleviation of symptoms. In fact, the tired, anemic patient was often made worse by this high fever.

More recently there has been a trend towards less heroic therapy in the chronic cases. In my own series I first started using subcutaneous vaccine, employing a stock preparation containing a thousand million each Brucella abortus and Brucella suis per cc. After a skin test was done, the patient was started on gradually increasing doses of the vaccine, subcutaneously. Unless the skin test showed a very marked local and systemic response, the patient was at once started on 0.1 cc. of the undiluted stock vaccine and the dosage increased 0.1 cc. at a time at weekly intervals until 1 cc. was reached. Then 1 cc. was given weekly for three to five injections. After that, treatment was stopped and the patient was told to return in one month for re-evaluation. This method of therapy worked very well, as the tabulated results show. The reactions were few and the response in general was good.

However, in an occasional case an increase in dosage of vaccine of only 0.1 cc. or two hundred million organisms, would produce a very sharp systemic response with high fever. This was often so disconcerting both to the patient and the physician that an attempt was made to find a method whereby such responses could be avoided. It had been proved by many different workers that intradermal vaccine would cause the development of agglutinins and opsonins in the patient's blood.[37, 38, 39] Because the reaction to an intradermal injection could be measured, it was decided to try vaccine by this method. Much smaller doses of vaccine were given and febrile responses were rare. For the first dose the patient was usually given 0.1 cc. of a 1-5 dilution of the stock vaccine. This was increased, depending on the reaction, by small amounts in subsequent injections. The amount of vaccine which could be given to any individual patient varied markedly. Two patients, each of whom got excellent results, illustrate this fact. In the first case vaccine could be given up to .7 cc. of the full strength preparation intradermally, while in the second .15 cc. of a 1-5 dilution was the maximum amount that could be tolerated without systemic response. The injections were given at weekly intervals or, in severe cases, more often. To illustrate the therapy, consider a case in which response to the intradermal vaccine was not marked. Therapy doses were as follows: diluted vaccine, 0.1 cc., 0.15 cc., 0.2 cc., 0.25 cc.; undiluted vaccine, .05 cc., 0.1 cc., 0.12 cc., 0.15 cc., 0.18 cc., 0.2 cc., 0.25 cc., 0.3 cc., 0.35 cc., 0.4 cc., 0.45 cc., 0.5 cc., then with some febrile response occurring, the dose was dropped back to 0.4 cc. of undiluted vaccine and continued at that level for approximately twenty injections.

The average duration of treatment for all the cases was 21.6 weeks; the longest, 28 months. The cases receiving subcutaneous vaccine alone averaged 19.7 injections. Those receiving intradermal vaccine averaged 19.4 treatments. Three cases who received both intradermal and subcutaneous vaccine had twenty-two subcutaneous and forty intradermal injections.

A more complete discussion of the intradermal method of therapy, with immunologic and allergic features involved, will be presented in a later paper.

RESULTS

Of the fifty-three cases diagnosed as active brucellosis, four did not continue therapy long enough

[34] Chinn, A. B.: Treatment of Case of Brucellosis with Sulfanilamide, *Ann. Int. Med.*, **14**:921-924, (Nov.) 1940.

[35] Sarvis, E. S.: Treatment of Brucellosis by Use of Sulfaguanidine, *Northwest Med.*, **41**:208-209, (June) 1942.

[36] King, E. S., and Lucas, Margaret: Sulfapyridine in Experimental Brucellosis, *J. Lab. & Clin. Med.*, **26**:616-621, (Jan.) 1941.

[37] Meyer, K. F., and Eddie, B.: Laboratory Infections Due to Brucella, *J. Inf. Dis.*, **68**:24, 1941.

[38] Heathman, L. S.: A Survey of Workers in Packing Plants for Evidence of Brucella Infection, *J. Inf. Diseases*, **55**:243, 1934.

[39] Goldstein, J. D.: Cutaneous Reactions in the Diagnosis of Undulant Fever, *J. Clin. Invest.*, **13**:209, 1934.

for evaluation and five others are still under treatment, so that the results cannot be considered at this time. Of the remaining forty-four cases, thirty-nine (88.7 per cent) had results which were classified as excellent, good, or fair. Five (11.3 per cent) showed no improvement. Breaking these figures down, eighteen (41 per cent) had complete subsidence of their symptoms and had excellent results. Ten (22.7 per cent) had good results, being relieved of most of their symptoms, while eleven (25 per cent) had fair results, being definitely improved but still having some symptoms persisting.

Considering the subcutaneous vaccine alone, fourteen cases were treated of whom thirteen had satisfactory response, while one failed to improve. This was 50 per cent excellent, 14 per cent good, 28 per cent fair, and 8 per cent poor.

Intradermal therapy showed 87 per cent improving, and thirteen per cent not improving. This was 33 per cent excellent, 33 per cent good, 21 per cent fair, and 13 per cent poor.

The three cases which received combined therapy showed two with excellent results and one with fair results.

In two additional cases no specific therapy was given. In one of these sulfathiazole was used with fair response, and in the other supportive therapy alone produced an excellent response.

DISCUSSION

Other forms of therapy are used in addition to those mentioned. Intravenous brucella vaccine has been recommended. Ervin and Hunt[40] have used intravenous typhoid vaccine. Simpson has tried fever therapy, both by the Kettering box and by induction. Convalescent serum has been tried in the acute disease with favorable results. Diathermy, x-ray, and ultra-violet therapy have all been used, mostly in conjunction with specific treatment. Neoarsphenamine, given intravenously, has had some enthusiastic supporters. Other chemicals have been given intravenously, such as mercurochrome, acriflavine, metaphen, et cetera.

It cannot be emphasized strongly enough that we are dealing with a chronic debilitating disease which requires much supportive treatment. Anemia is often prominent. Gastro-intestinal symptoms are marked. Sedation may be necessary.

The physician must be open-minded regarding the diagnosis. It is just as erroneous to consider every chronic illness, in which a diagnosis cannot be made, to be a brucellosis as it is to say that chronic brucellosis doesn't exist. Some criticism has been expressed—that a new diagnostic fad is being ridden by some physicians. This may be true, but the suggestion that many fail to recognize chronic brucellosis is more fitting. So long as contagious abortion continues to be common in cattle, and Brucella suis infection in hogs, we will see clinical brucellosis. Pasteurization laws will help to eliminate it, but up to this time such laws are far from universal. Where universal pasteurization is required brucellosis rarely exists. Where raw milk is consumed and universal herd testing and control are not practised, brucellosis is a major public health menace.

Brucellosis has been likened to syphilis and tuberculosis in its protean manifestations and in its chronicity. One other comparison that bears comment is the need for extended therapy. Intelligent co-operation of patient and physician is absolutely necessary in the treatment of brucellosis, especially in its chronic phase. The patient must have a thorough understanding of his disease. He must know that it is an extremely chronic affair, for which we have no specific, quick acting therapy; that he may never achieve a complete cure; and that treatment must be continued regularly and systematically. Davis's remark that he never talks to the patient about a "cure" is certainly pertinent.

CONCLUSIONS

1. One hundred twenty-four patients with chronic illness were tested for brucellosis by means of intradermal vaccine.

2. Seventy, or 56.4 per cent of these gave a positive skin reaction to the Brucella abortus and Brucella suis vaccine.

3. Of those tested, fifty-three, or 42.8 per cent, were considered to have clinically active brucellosis.

4. Only two cases were encountered in children. The average age of the patients was forty-one.

5. Twenty-three per cent of the active cases gave a definite history of exposure to Bang's disease in cattle.

6. All of these patients consumed raw milk.

7. Forty-three per cent of the active cases gave a past history of febrile illness suggestive of brucella infection.

8. Tiredness was the most common symptom complained of. Others frequently noted were headache, weight loss, weakness, nervousness, fever, constipation, bloating, and chest pain.

9. The number of positive agglutination reactions before therapy was very low.

10. The hematocrit reading showed a high average volume of packed red cells; otherwise the laboratory findings were not significant.

11. Most of these patients were treated by subcutaneous vaccine, by intradermal vaccine, or by a combination of both.

12. Eighty-eight and seven-tenths per cent of the treated cases showed improvement, while 11.3 per cent failed to improve.

13. There was little difference in the results of subcutaneous vaccine and intradermal vaccine. The latter method has value in cases where unexpected febrile responses occur from subcutaneous vaccine. It remains to be proved whether the antibody response varies in the two methods.

[40] Ervin, C. E., and Hunt, H. F.: *J.A.M.A.*, **109**:1966-1971, (Dec.) 1937.

THE PREVENTION AND TREATMENT OF POSTOPERATIVE PULMONARY ATELECTASIS BY THE STIR-UP REGIMEN AND TRACHEOBRONCHIAL TOILET

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MUNCIE

Pulmonary atelectasis and bronchopneumonia are found wherever surgery is performed and anesthesia administered. The recognized treatment of these complications is bronchoscopic aspiration, which at this time is not readily available in many hospitals in the state of Indiana. Therefore, for the prevention and treatment of these conditions we review the less complicated stir-up regimen and tracheobronchial toilet which the surgeon, anesthetist and nurse may use.

It has been suggested that bronchopneumonia follows the appearance of septic emboli in the lungs. We cannot influence its development if this is true. More recently the well-supported theory is advanced that bronchopneumonia appears following atelectasis. Atelectasis follows the plugging of a bronchus with aspirated vomitus or tenacious mucus; it may also be due to restricted pulmonary ventilation. If we can remove the bronchial plugs and reinflate the collapsed alveoli, we can prevent the development of bronchopneumonia.

Absorption of the atmosphere from the affected area of lung causes it to assume the consistency and appearance of liver. This can occur with startling rapidity during and immediately following anesthesia when the alveoli contain a high percentage of the rapidly absorbable anesthetic gases. An interesting illustration of this is afforded in the following case reported by Dr. Waters: Some time after placing an endotracheal tube in a patient the anesthetist noted decreased expansion of the left chest. A roentgenogram taken at this time showed that the endotracheal tube had been pushed into the right main bronchus, and that complete collapse of the left lung had occurred. The anesthetic atmosphere of oxygen and ether was rapidly absorbed. The anesthetist withdrew the tube several centimeters, lightened the anesthesia so that the patient coughed, and made slight pressure on the rebreathing bag during inspiration. Ten minutes later a second roentgenogram showed the lung to be completely reexpanded.

During the operative and postoperative period there are several factors which may influence the development of atelectasis with or without the occurrence of a bronchial plug. These are:

1. Aspiration of vomitus, blood, or other foreign material (chewing gum) causes bronchial plugging with solid particles and mucus poured out as a protective.
2. Bronchitis, both chemical, as seen in habitual smokers, or infectious is often accompanied by an excess of thick tenacious mucus.
3. Quiet respiration during anesthesia with a readily absorbable atmosphere results in atelectasis.
4. The pain caused by deep breathing results in shallow respiration and decreased aeration of the bases and periphery of the lung.
5. With a depressed respiratory center, becase of shock, debility or medication, there is no cough to clear out excess mucus.
6. Elevation of the diaphragm when the abdomen is opened, tight binders, and kidney position restrict pulmonary activity and result in poor aeration.

In order to prevent atelectasis during anesthesia, and in the immediate postoperative period, from the rapid absorption of anesthetic gases, the anesthetist adds to the mixture some inert gas, such as helium or nitrogen, which is slowly absorbed, and presses gently on the rebreathing bag during inspiration to force gases to the more distant alveoli. It is easier to prevent atelectasis than to cure it.

Another method for prevention of atelectasis in the postoperative period is the stir-up regimen so widely advocated by Dr. Waters.[1] This consists of three simple points:

1. The patient must radically change his position.
2. He must cough vigorously.
3. He must take several deep breaths.

By a radical change in position we mean that the patient must turn, or be turned, from side to side, from side to back, or from back to side. The patient lying on his back does not aerate the base of his lungs well, and there is pooling of secretion. He is turned to his side to permit one lung to expand more fully and permit movement of accumulated fluid, but as the respiratory volume is smaller in this position, he cannot remain in it indefinitely. Neither position is good, but by changing from one to the other the harmful effects are minimized. The active or passive movement of the limbs at this time affords mild stimulation from its effect on the return flow of blood.

A powerful cough is a most effective means for removing accumulated secretion from the respiratory tree. When the cough reflex is depressed, as often occurs during the postoperative period as a result of narcotics, barbiturates, debility, shock or brain injury, the usual stimulus of excess mucus does not produce an effective cough. Voluntary effort, which must be firmly insisted on by the

[1] Dripps, R. D., and Waters, R. M.: *Amer. Jour. Nursing*, **41**:1, (May) 1941.

nurse, is necessary. The inhibition caused by pain during this activity can be greatly reduced by firm pressure with the palms of the hands applied over the abdominal incision.

After the cough has removed the material obstructing the bronchi, deep breathing forces air into the alveoli which have become atelectatic, thereby reducing the activity of bacterial growth and increasing the surface of functioning alveolar membrane.

When the patient will not or cannot co-operate carbon dioxide will help. Best results are obtained when the undiluted gas is sprayed from a small rubber tube over the nose and mouth. This usually stimulates coughing and deep breathing in all cases except those with great depression of the respiratory center. If the desired effect is not produced in a few minutes, discontinue the administration of carbon dioxide in order to avoid the toxic effects of an excess of this gas. Carbon dioxide alone is better than carbogen, for a high percentage of slowly absorbed nitrogen reaches the alveoli with the first, whereas with the latter substance much oxygen is present. This may be rapidly absorbed and the collapse recur.

The routine of turn, cough and breathe should be used every hour, or, if indicated by marked debility or depression, more often. Much of its effectiveness lies in the regularity of its use. It will do more to promote recovery than most of the medicines ordered, and it should be regularly charted as well as any change noted in the patient at the time.

If atelectasis develops, the problem of diagnosis arises. This is slight in the case of massive collapse, which is characterized by dramatic, sudden onset, prostration, air hunger, cyanosis and shift of the mediastinum. The roentgenogram is of assistance here.

The diagnosis of lobular or patchy atelectasis depends upon the presence of three signs, namely, a concomitant rise in temperature, increase in pulse rate, and rise in respiratory rate. The following figures from the chart of a patient during the immediate postoperative period will illustrate:

	T	P	R
14 Hours postoperative	992	100	20
22 " "	100	100	22
26 " "	101	94	20
30 " "	102.4	135	34
34 " "	104.2	150	48
42 " "	102.4	140	37
50 " "	102.8	142	30
60 " "	101.2	120	28
70 " "	100	92	20

Twenty-six hours postoperatively someone suspected something was wrong because of the rising temperature and instituted the stir-up regimen. At thirty hours we see a definite increase in the three readings, characteristic of the complication under consideration. At thirty-four hours oxygen therapy was instituted. At fifty hours the anesthetist had his attention directed to the patient. He felt that recovery was well under way and did not perform a tracheobronchial toilet. The roentgenologist offers little aid in the diagnosis of this degree of atelectasis. He is evasive and can say only that there is an infiltrative process which is possibly bronchopneumonia.

Unquestionably bronchoscopic drainage is the treatment of choice for atelectasis and bronchial obstruction.[2, 3] This requires a highly-trained specialist, a staff of assistants, an extensive array of instruments and a trip to the operating room for the patient. At the present time several of these are not readily available in many Indiana hospitals. However, the ubiquitous anesthetist can introduce a soft rubber tube between the vocal cords and aspirate the tracheobronchial tree. This procedure, which has been advanced by the school of anesthesia at the University of Wisconsin,[4] is called the tracheobronchial toilet. Waters reports that 60 per cent of forty-one cases treated in this manner improved and did well.

Before commencing a tracheobronchial toilet it is well to gain the confidence of the patient and to enlist his active co-operation by explaining all of the steps in the procedure, and by promising to terminate the undertaking at any time should he so request. Since inability to speak while the endotracheal tube is in place may cause apprehension, a slate or pad of paper and a pencil are provided so that the patient can express his ideas or request that the tube be withdrawn.

The patient may sit or recline in bed; usually some elevation of the head of the bed is helpful. Twenty minutes is spent in carefully and progressively spraying an anesthetic solution on the nose, base of tongue, fauces, pharynx and vocal cords. This length of time is usually necessary to secure adequate anesthesia; failure is likely if there is not sufficient anesthesia. The anesthetic sprays commonly used are 4 per cent cocaine, 2 per cent pontocaine, 2 per cent metycaine and 1 per cent diothane. Practice and experience usually decide the choice; all are effective if used properly.

Select the endotracheal tube to be used, choosing the largest one which will pass readily through the nostril if that route is decided upon—a slightly larger size may be used for direct insertion. Sizes six to nine (twenty-nine to thirty-four, French) will fit most adults. Lubricate the tube well with an ointment containing 1 per cent nupercaine or diothane to reduce the sensitivity of the vocal cords. When introducing the tube according to the method of Magill, insert it slowly, convexity upward, into the more spacious nostril. By adjusting the degree of flexion and rotation of the head, and by having the patient pant as the tube nears the cords, the tube will usually enter the glottis. It is not as easy

[2] Mousel, L. H.: *Jour. Amer. Med. Assoc.*, **115**:899, (Sept. 14) 1940.

[3] Eversole, U. H.: Anesthesiology, **1**:72, (July) 1940.

[4] Waters, R. M.: *Brit. Jour. Anes.*, **18**:1, (March) 1942.

to perform intubation by this method on a patient who is awake as on one who is asleep. Sometimes the tube will kink in the pharynx and be useless as a route for aspiration. If the first method fails, or if one elects, the tube is passed directly into the glottis while gentle laryngoscopy is performed. Remove the laryngoscope and insert a bite block to prevent occlusion of the tube by the teeth. With either method a sharp bout of coughing marks the entry of the tube into the trachea. A spray from the nebulizer directed into the tube during inhalation reduces the sensitivity of the tracheal mucosa. The aspirating catheter should be size fourteen to eighteen, French, and should have six to eight perforations near the tip. Lubricate the catheter with a thin layer of grease and attach it to the suction machine. Now insert the catheter full length into the endotracheal tube. Violent coughing, which marks the contact of the catheter with the tracheal and bronchial mucosa, squeezes out any fluid or mucus present and dislodges many bronchial plugs. Move the catheter gently in and out, twisting it, and change the position of the patient from side to side so that it will enter both main bronchi. That it will pass more than half way toward the periphery of the lung has been demonstrated by roentgenogram. Withdraw the catheter and the endotracheal tube and terminate the procedure when no more secretion can be obtained. Deep breathing at this point helps further to reexpand any alveoli which remain collapsed. Forbid water and food until the anesthesia of the tongue and pharynx has disappeared or aspiration may occur.

Some have recommended that aspiration be carried out with a size fourteen to eighteen, French, soft rubber catheter passed directly into the trachea without using a larger endotracheal tube. Hathaway[5] points out the danger of this method. Laryngospasm occurs with very slight stimulation. Should it develop while the small tube alone is in place, sudden complete collapse of both lungs is likely because of rapid withdrawal of air by the suction apparatus at a time when entry of air about the tube was prevented by spasm of the cords. It seems much safer to have in place the larger tube also, so that at all times the airway will be open.

Tracheobronchial toilet is useful in cases where the patient is too weak or too depressed to cough out the pulmonary secretions, which will accumulate and prevent adequate oxygen exchange if not removed. This is seen after cerebral accidents or brain operations. Prompt drainage is of value and repeated aspirations may be necessary.

Summary

1. A brief discussion of the cause, prevention, diagnosis and treatment of postoperative pulmonary atelectasis and its sequel, bronchopneumonia, is presented.
2. The stir-up regimen is stressed as a preventive measure for postoperative atelectasis.
3. Tracheobronchial toilet, a method of treatment, is reviewed in detail and suggested as an excellent substitute when bronchoscopic drainage cannot be carried out.

[5] Hathaway, H. R., and Leigh, M. D.: *Trans. Amer. Soc. Anes.*, 5:56, (May 4) 1939.

WHEN SHOULD THE BLOOD TEST BE TAKEN DURING PREGNANCY?

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The recognition of syphilis in the pregnant woman is usually established by the positive blood serological test. The fact that pregnancy does not cause false positive serological tests has been definitely established; nevertheless, as in all other instances, the test should be verified by repetition, if positive, to avoid an error in technique or in labeling. Regarding the foregoing statements as well-established facts, the question is, When is the best time for the blood test to be taken? A part of the question can be answered by stating that the test should *not* be taken at delivery — in other words, the cord blood. Such a test is today regarded as worthless, as has been demonstrated beyond a shadow of a doubt by Faber and Black, Christee and others,[1] for syphilitic reagin of the mother may appear in the blood of nonsyphilitic newborn, whereupon in many instances subsequent observations and tests may well establish the fact that the child is free from infection.

The Indiana state law is not explicit in demanding a certain time for the test, thus collecting and having tested the cord blood comes within the scope of the law, yet in doing it at that time the physician is doing his patient as well as himself an injustice without even considering the infant.

In order to further answer the question raised by the title of this comment, we again have to bring to mind definite evidence—the time of the infection of the child. Late in the fourth month is the time the child becomes infected if the mother has early syphilis. If the disease is contracted by the mother later during the term, the child is, of course, infected later.

No matter how little treatment is given during pregnancy, some value is obtained, but the earlier the diagnosis is established and treatment started,

[1] "The Modern Treatment of Syphilis," by Joseph Earle Moore, M.D. Second Edition, (p. 482) Charles C. Thomas, Springfield, Illinois, 1941.

the better for the child. It is the child that is being treated and not the mother during the gestation period.

Based on the foregoing statements, it is the suggestion of syphilographers that a prenatal test be taken before the end of the fourth month and again at the beginning of the last trimester of the term. In the majority of cases tests taken at those two times are certain to eliminate the possibility of the nonrecognition of a syphilitic pregnant woman. If only one test is contemplated, the blood should be drawn and examined before the end of the fourth month. The physician following these suggestions is practicing good preventive medicine.

SYPHILIS CONTROL IN INDUSTRY*

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The response of industry in the syphilis control program has been amazing. It is just six years since the "Caterpillar Plan" was submitted to the American Association of Industrial Physicians and Surgeons, and although there was some hesitancy and doubt expressed at that time, it is safe to say that most of our large industries today have a well-organized and functioning program for syphilis control. In 1936 when Doctor Parran made his plea for the fight against syphilis, he also had in mind the many industries with one hundred or less employees, which constitute over 60 per cent of the total employees actually engaged in so-called "industrial work," so if we are proud of our record in the larger industries, we still have a tremendous amount of work to do in reaching the smaller groups.

The duty rests with the public health authorities, especially those of city and state departments, who through personal contact and education must convince the management that their co-operation is essential for the success of the program; that the cost of a complete health program is not excessive; and that the co-operation is humanitarian and often pays for itself in improving the health of their employees, thereby reducing compensation costs and absenteeism.

City and state health departments have already contributed much to this program. As a concrete example, over 75 per cent of the people employed in industry in Peoria, Illinois, are operating under the "Caterpillar Plan."

It is interesting to note that in 1942, 28,675 cases of syphilis were reported to the Illinois State Department of Health, which is more than had been reported in any other year. In comparison, 23,484 cases were reported in 1941, and 11,213 cases in 1925. On the surface it would appear that syphilis is increasing, but larger groups are being employed in industrial work and, therefore, are given blood tests; also this number includes the thousands who are being examined for selective service. The optimistic interpretation is that these cases are being diagnosed and also being treated, and that within two to three years a sharp decline will be noted in the number of cases reported. In our fight against this disease, in which industry, public health authorities and many other organizations are contributing a great deal, it might be well to convince county and city officials that "red light" districts are not a necessary evil and that a large percentage of new cases originate from this source.

The industrial physician is in a unique position in syphilis control programs because of his relationship with the worker, the plant officials and the private physicians and clinics. A syphilis control program that is well carried out cannot but help to bring these groups closer together. The private physician often looks at the industrial physician with fear that he will lure patients away from him. It is the duty of the plant physician to keep workers in good physical condition and, therefore, he must constantly be on the lookout for pathological conditions. The plant physician is not permitted to treat conditions that are not traceable to employees' occupation or to accidents, and he must, therefore, refer workers to their private physicians for the correction of defects. Very few of these cases would otherwise reach the family physician until symptoms interfere with their livelihood. In case of syphilis the plant physician acts as a case-finder for the private physician. He does not attempt to give treatment, but refers the case to the employee's private physician for treatment.

When an employee is diagnosed as having syphilis, he is greatly in need of a friend who will give him proper advice and guidance. If the procedure is attempted by the private physician alone, the worker is likely to think, because the treatment is long and expensive, that he is not receiving proper service. The plant physician can and does advise the worker that the treatment of syphilis requires time and money, and that the private physician is doing the right thing. Too many patients lapse from treatment because they are not sufficiently informed as to what constitutes adequate treatment.

In order to carry out a successful health campaign, it is very necessary that education be made a principal factor in the program. The progress that has come about in serology and chemotherapy

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* Presented before Indiana's Industrial Health Conference, at Indianapolis, February 25, 1943.

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makes it important that physicians be included in this educational process. At present this is being publicized through the medical press and at meetings of medical societies. Fortunately, the cinema has made possible a talking film by some of the world's greatest men in this field. It would not be possible to have all these men together at one meeting; however, their views are well presented by these talking pictures. We would urge that medical societies consider this means of hearing these men and of observing the demonstrations that are accessible in this method. The film is available from several sources. In a number of states the state department of health will show the film upon request from the medical groups.

The public health service informs us that there are 40,000 deaths each year from syphilitic heart disease. Records from the country's leading clinics show that 65 per cent of the patients who appear with this condition do not know that they have syphilis. Each death represents a loss of nineteen to twenty-three years of life—thus 850,000 years of life expectancy lost. Many of these are trained industrial workers. There are 4,500 deaths each year from paresis (syphilis of the brain), and another 1,100 deaths from tabes dorsalis (syphilis of the spinal cord). These two account for another 100,000 years of life expectancy. Child deaths from congenital syphilis bring the figure well past the million mark.

Syphilis is a disease of the young. Most infections occur between the ages of fifteen and thirty. The disease has a long course and is usually fatal in from ten to twenty-five years—in middle life. This period of illness, from ages twenty-five to fifty, is important to industry inasmuch as it represents the most productive period of a man's life.

Now let us consider the cost of care for institutionalized cases. Our state institutions care for 18,700 cases of general paralysis. The public and private institutions combined have a bed capacity of forty-three thousand for the care of syphilitic mental and nervous cases. If all of these cases are cared for at the two-dollars-a-day rate, which is the average for public institutions, the annual cost would be more than thirty-one million dollars. More than eight thousand new cases are admitted to these institutions each year. This definitely indicates that sufficient treatment is not instituted in the early stages of syphilis. Proper early care would be the cheapest treatment for syphilis. Wisconsin started a syphilis control program twenty years ago, and at that time 12 per cent of the insanity in that state was due to syphilis. This rate has been reduced to less than 4 per cent. This program is saving the state of Wisconsin millions of dollars in domiciliary care alone of cases hopelessly insane due to syphilis. Wisconsin has gone about as far as it can until all the other states join in the program of eliminating syphilis.

The cost of treating a case of early syphilis from the time of infection until cure is effected would be somewhere between $50 to $600, depending upon whether it was done by the mass method of a public clinic or by a high-priced specialist. Apply an average cost of $100 to our 1,100,000 annual cases of syphilis, and the result is $110,000,000. A conservative figure of the cost of institutional care of the syphilitic blind has been estimated at $10,000,000. America's 160,000 syphilitic heart disease patients are not ordinarily hospitalized, and the cost of their care cannot easily be estimated; nor can the cost of home care for any of the other groups. Industry absorbs the greater load of the taxes for the care of these unfortunate syphilitics whose sad plight could easily have been prevented with proper treatment.

The plan in use at present at the Caterpillar Tractor Company, and which has been functioning for the past six years, briefly is as follows:

The individual, following his interview with the Personnel Department, is referred to the Medical Department for a complete physical examination, which includes a routine Kahn test and urinalysis, as well as any blood studies which might be required. Incidentally, it may be mentioned here that the Caterpillar Tractor Company maintains its own laboratory with a licensed technician, and functions with the approval of the Illinois State Board of Health. If following the examination the Kahn test is found to be positive, the individual is given a personal interview with either the medical director or the plant physician, and he is informed that the blood test was found to be positive and that he should present himself immediately to his family physician for a re-check, the resultant report to be submitted to the Medical Department.

The individual is then told that this information is absolutely confidential between himself and the physician, and that no information has been given to the Personnel Department or the supervisors. This, in my opinion, is very essential, and upon this factor alone depends the success or failure of the plan. If the individual is given absolute assurance that his condition is not public knowledge, and that he is to be given the opportunity to correct his physical condition, he is grateful rather than resentful.

The individual is then told that if he presents himself to his family physician for treatment, and continues the treatment, he will be given employment as long as he co-operates. Each month a check is made with the family physician to ascertain the number of treatments and to determine the co-operation of the individual with his physician during that period. If the report is favorable, the individual continues in his work. Following the termination of treatment, the individual is asked to return every six months for a Kahn test.

The operation of this plan is dependent upon the type of syphilis that presents itself in the individual. Individuals in the primary or secondary stages are, of course, rejected, also those who show definite evidence of neurosyphilis to the de-

gree that they are partially disabled at the time of their examination.

Inasmuch as figures are uninteresting, we will give the important totals and percentages which will show the benefits from such a plan. These cover the period from September, 1936, to February 17, 1943:

Grand total (Kahns)	35,315
Positive reactions	598
Percentage of positives	1.65%
Rejected at time of examination	21
Number of cases in process of verification	43
Number leaving employment before completion of treatment	96
Under treatment at present	158
Number not receiving treatment because of contraindications	18
Cases with conflicting reactions	18
Completed 74 weeks of treatment	254

In reviewing these figures, it means that within a comparatively short time 598 cases have been reported to the State Department of Health, and these individuals know that someone is interested in their case, for each one has had a personal interview with a physician of the Medical Department and understands the value of treatment and the results of untreated cases.

In the cases which have completed their treatment, a number still showed a positive reaction, but many of these were sent to Doctor Kahn at the University of Michigan, to whom we are extremely grateful for his kind co-operation. Spinal punctures were not available in all of these cases, inasmuch as this is dependent upon the attitude of the attending physician.

Permit us to give a word of warning in regard to the cases which give a positive reaction with no clinical evidence or history. If there is any doubt as to the diagnosis, it is desirable to submit a blood specimen to Doctor Kahn, or to the State Department of Health, for a Kahn verification test, for in the final analysis the diagnosis remains in the hands of the clinician and not the laboratory. All of our cases are based upon the Kahn test because the false positive reactions are only 2 per cent, as reported by the 1935 evaluation study, and at present the percentage is lower because of the constant study and work of a man who has devoted his life to the study of blood testing and its interpretation—Dr. Reuben Kahn.

Let us now consider the effect of this plan upon the various individuals concerned in its operation. The employer benefits by the fact that the cases of syphilis in his organization are known cases and are under continuous observation and treatment, thus certainly making these individuals less of an accident hazard. Their proficient workmanship is improved; there is less loss of time with an eventual elimination of mental hazards, total disabilities, and replacements. The employee naturally receives the greatest amount of benefit from this plan, inasmuch as he is able to continue his occupation, is able to support his family, and is able to pay for the treatments necessary for the ultimate favorable termination of his case.

At this time a question may be raised concerning the welfare of fellow-employees, but, after all, in organizations in which the syphilitics are unknown the hazard is much greater to the fellow-employee—not only from an accident standpoint, but also from the possibility of transmission. We all know that cases under treatment are less likely to be infectious than those which receive no treatment at all.

It has been brought to my attention that in some instances there has been objection by the insurance carriers to this particular plan, but it would seem that the insurance carriers certainly would profit from a plan of this type, as opposed to an organization in which there is no plan of control. In this respect we often find serious complications in accidents to syphilitics, and since under most of the compensation acts an exaggeration of a pre-existing condition is compensable, the ultimate payments are, therefore, increased because of the presence of syphilis. In an organization where there is a control of such conditions there is less possibility of complications; there is a reduction in time-loss and in specific loss, and in some cases there are fewer death benefits.

Certainly there can be no objection to this plan by the family physician, inasmuch as the cases are referred to him for treatment and the only thing asked of him is his co-operation in maintaining the treatment for the proper period of time.

The most alarming situation encountered is the lack of knowledge among physicians who attempt to treat syphilis. In many instances individuals have been given a course of treatment for three to four months and were then informed by their family physician that they have received all the treatment necessary to cure their disease. We are of the opinion that treatment should be continuous over a period of at least seventy-four weeks, after which time the individual should have repeated check-ups by Kahn tests at certain intervals during the remainder of his life.

In conclusion, let us emphasize that we should redouble our efforts to further the campaign against syphilis, especially among the smaller industries, keeping in mind that the program for syphilis prevention is simple and not costly. Let us remember that the industries that have adopted this program have contributed much to further the cause of humanity, and that through the combined efforts of physicians, public health officials, educators and the public we will conquer this "Great Killer."

Syphilis control in industry will make for a better world, giving the afflicted individual the opportunity for treatment and cure. It will reduce the number of broken families, alleviate suffering and death, but, above all, it will make for a happier and more secure American life.

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JUNE, 1943

Editorials

WALTER F. CARVER

The other day we in Indiana lost a "Country Doctor"; a man whose passing brought regret to practically every individual in his home community and to hundreds of Hoosier physicians who had become intimately acquainted with the man through his years of activity in the affairs of the Indiana State Medical Association.

Walter Carver was a most unusual character; physically, he was a large man; he had one of the most pleasing personalities we ever have known; he knew how to smile and used that knowledge most frequently; his "booming" voice was heard at every state convention, where for several decades he served on the Credentials Committee.

Walter Carver was a country doctor; he knew all the phases of practice in the rural areas and knew the answer to all the problems arising therefrom. We believe that it was Walter Carver who first solved the problem of indigent medical relief, by having his county medical group take over that problem in his home county.

For almost forty years we have met Walter Carver at these annual gatherings, and in the interim we have had occasional letters from him—these latter years the letters being more or less reminiscent in character. He liked to talk of the time when the Indiana State Medical Association had gotten into a sort of routine—"rut," he termed it. Something had to be done about it, and Walter Carver was one of the group that many years ago completely "upset the apple cart," took over and directed the affairs of the organization into other channels.

His local society has prepared a resolution that is published herewith. This is not the usual "Whereas" type of resolution; every word therein conveys the deepest sense of a most worthy individual, a "Big Man" in every sense.

> "Upon rare occasions there passes from our organization one who should have some very special eulogy, and to give formal expression to the sense of loss in the passing, from this mortal life, of our friend and companion, Walter F. Carver, M.D., we hereby declare that we are extremely sensitive to that loss.
>
> "We grieve his departure and in solemn accord give thanks that we had the privilege of knowing him and of sharing his companionship.
>
> "All of us are better men and citizens because of our contact with his spirit of friendliness and the breadth of vision.
>
> "To his relatives and friends outside this association we tender our sympathy in their grief and loneliness, and the assurance of our appreciation of what his loss means to all who knew him.
>
> "The committee suggests that a copy of this tribute to the memory of Doctor Carver be entered upon the records of The Noble County Medical Society."

Our personal loss is a great one, in which opinion several thousand Indiana physicians will share. Long will the memory of Walter F. Carver remain in the annals of Indiana Medicine.

THE "GIMME" ARTISTS

We know of no other group that is so constantly solicited for contributions, sale of tickets, and purchase of various articles, most of which are unusable, as the medical profession. Due to wartime conditions the "battery telephone gals" are not so numerous as a few years ago, but they still exist. The setup runs something like this:

Some enterprising genius hits upon a plan whereby he presents to some organization a scheme to make money. He has soap, vanilla extract or whatnot for sale, and offers a commission to the organization for their assistance in the sales promotion. Or, perhaps it is a little group of professional promoters of "baby shows," with a prize for the best-looking baby. In the latter case the organization does practically all of the work, inducing mothers to enter their darlings in the contest, sell tickets, et cetera.

Of course, they have to have doctors to serve as judges, make the physical examination and that sort of thing — this work to be done free of charge. In all these schemes the promoters, of course, take the lion's share of the profits, the co-operating organization having to be content with something like 15 per cent of the *net* profits.

One might go on indefinitely in naming these "skin game" promotions, but they are so common that we all have met up with them.

Toner Overley, manager of the Indianapolis Better Business Bureau, became interested in these

things a good many years ago and was instrumental in having the Indianapolis City Council enact an ordinance that slowed down such promotions to a great degree, yet too many of them continued to operate. Some months ago a new ordinance was enacted, this time with a lot of teeth in it and one that seems almost foolproof. It provided for the appointment of a charity solicitations committee, composed of six men named by the mayor of that city. *The commission elects its own officers and runs its own business, sans political control of any sort.* The licensing of "religious solicitations" is not provided for, but the ordinance provides for its registration with the Commission, which will enable those in authority to determine whether funds thus raised go into proper channels.

The ordinance seems to cover almost every form of solicitation, under the name of "Charity," one of the few exemptions being the collections often taken at church meetings, luncheon clubs and similar gatherings. All solicitors are provided with identification cards that are approved by the Commission, giving the name and address of the solicitor, the date upon which the card was issued and the expiration date, and it bears the title, "Solicitor's Identification. This is not an endorsement."

Solicitors are compelled to give donors an official receipt for the contribution. And it is further provided that a record of all receipts and expenditures be kept by those conducting their "Charity" campaigns.

Thus it would seem that Indianapolis is pretty well taken care of in this matter; the commission has been named by Mayor Tyndall, full publicity of the provisions of the ordinance has been made, and it is now up to the citizens to protect themselves. As for the rest of us throughout the state, we may well profit by the suggestions sent out by the Indianapolis Better Business Bureau.

Pay no attention to telephone solicitations; even though they are not so common as a short time ago, they still continue to be troublesome and bothersome pests. Ask the solicitor to call in person — this will usually "kill them off." Some of the professional solicitors are very brazen. We have known of instances in which they have sent tickets to the offices of professional men, telling the secretary, "Doctor Blank ordered these tickets," when, as a matter of fact, the doctor had turned down the solicitation.

We never have forgotten the conversation we had with a man who during the first World War had been engaged in boosting stocks and bonds of questionable value. He asked us what class of folk we supposed were the "biggest suckers." We guessed wrongly, whereupon he gave the answer, "Doctors are the easiest 'marks,' with lawyers a close second!"

Be wary of "Charity" solicitations; in wartime it seems that they increase to an amazing extent. There are so many demands on the medical profession already, most of them for worthy causes. There are plenty of places for the odd dollars we find in our pockets, places where these dollars will do much good. Don't hand out the dollars promiscuously.

SCRAP

We hear a lot about "scrap" these days; both kinds of "scrap" if you please. The one that indicates a battle of greater or less proportions between two or more opponents and the one that indicates the collection and proper disposal of waste materials. For some time past we have been receiving more than extensive communications from at least two organizations with headquarters in New York City, the latest effusions being lengthier than usual, the two of them covering some fifty-five pages which, if their mailing list is as large as indicated, would make a sizeable pile of scrap paper in itself.

This leads to the observation that there is an enormous waste of print paper of various kinds going on all over the country, even official Washington being one of the offenders. We dare say that the Government Printing Office uses thousands of tons of paper unnecessarily, judging from the host of material being sent out over the country.

But there is much of merit to a scrap campaign, and even medical men can and should participate therein. Some time ago, when the first nation-wide campaign was being waged, most of us dug through our homes, garages and back yards, collecting scrap material of all sorts — and a right good job was made of it. However, most of us have material that was overlooked at that time, and now that the second campaign is on it would be well for us to do another bit of combing of our home and office. Most physicians have a junk box in their office, as well as in their home. We all have instruments that have been discarded, some broken, some so out of date that they are no longer of good use; all this material adds to the nation's scrap pile and should be put to good use.

We urge that you take a few moments to make such a check and add your mite to this necessary factor in winning the war. It is much too late to bemoan the fact that for several years our scrap was being sent to Japan — that is all water that has gone over the dam; our present job is to see to it that our steel mills have sufficient scrap material to meet the insatiable demands of the war plants engaged in building the agents of destruction.

Iron ore, pig iron, et cetera, are vital elements in the production of steel, but they must have steel scrap to make a real good job of it. Join up in the scrap campaign, even though your contributions are limited. "Talk it up" with your patients so that they, too, may become scrap-minded. Let's not lag in this any more than we do not lag in other drives. There is plenty of scrap in the country; the job is to make it available.

WAR BONDS AND RATIONING

Thirteen billion dollars must be a lot of money; most folk never heard of a billion dollars prior to the present war. Now the average man on the street speaks in terms of millions and billions, even as he used to talk of hundreds and thousands. But that thirteen billion dollars represents the Second War Loan, and our information is to the effect that this request was met by the people of the United States.

Much of this was made up by those making regular investments, a great portion of it represented some degree of denial and saving elsewhere; but not enough of it, in our opinion, came through the rationing program, for rationing does offer an opportunity to save a lot of money.

The question of whether two pounds of meat, fats and butter are enough to meet the weekly calorie demands of the human body does not enter the present discussion. The fact remains that a rationing program is on, and we should do our part in carrying it out.

A good many doctors find themselves in the same situation as a local physician who recently expressed his opinion on this subject. Boiled down, his comment was this:

"I can afford, financially, to take my family out to a two dollar — or more — dinner several times each week. These dinners are available to those who can pay the price. By doing so I can get by without using my red stamps, holding them for three or four weeks, then making a sizeable purchase of meat, butter and cooking fats. But this is unfair; the meat that we get at these high-priced dinners represents just so much meat withdrawn from the open market. It means that a lot of folk will be unable to buy meat, even though they may have the red stamps."

That is just one man's opinion and represents but one phase of the general picture. The connection with War Bonds comes in this wise; the family that accepts the rationing program and adjusts their daily meals to that plan — not rushing out to restaurants, night clubs, et cetera — save plenty of money. But do they put these savings in War Bonds? We fear that many of them do not; it goes for extras about the house and in the way of personal adornment.

We are in for a long war, most everyone tells us; and even after the war is ended there will be need for huge governmental expenditures. All this money cannot come through taxes; much of it will have to come from loans — and these loans will have to be made by the American people.

We plead for greater co-operation from the medical men at home. They all are busy; they can afford more and more War Bond purchases — this is one of the MUSTS of the present, and the medical profession cannot afford to evade its full duty in this matter .

WOMEN IN INDUSTRY—A PROBLEM

Modern industry is undergoing more or less of a revolution, what with the Selective Service requirements and the various edicts of the Manpower Commission. And as the war program further develops, so we are being advised, these industrial changes will be manifold. In our great industrial centers a limit is being set on the amount of new work that may be assigned; that is, when the labor reservoir is about depleted, there can be no additional war contracts for that community.

One of the greatest problems of the times is that of women in industry. In the Calumet region we long have been accustomed to seeing women folk, clad in one-piece working suits — with their clock number and picture — boarding the bus, either on their way to work or on their way home after the eight-hour shift is ended. Of late there has been another addition to the long list of employment for women — in war times, that of "section hands" on our railroads. Several of our larger trunk lines already have organized such gangs and, so we are advised, women are very satisfactory workers in this position.

Some of our local manufacturing plants employ scores of women in the foundry as coremakers, et cetera, and here again we are advised that they do their work well. Others operate machines, not a few of them operate the huge cranes that are familiar sights in our large mills; in fact, they are to be found in practically all departments of the modern industrial plants.

There is, however, one problem that will have to be met, that of the care of the children of these women workers, for the majority of them are married and have young children. What with transportation conditions as they are, the average feminine worker is away from her home some twelve hours each working day. This means that someone must look after the children, get them off to school, prepare their meals and do all the things a mother normally is expected to do.

Recently we were invited to a luncheon conference, attended by some twenty persons connected with various interests, where this special problem was under consideration. While we had thought we had quite a bit of first-hand information on the subject, this gained from personal interviews with a large number of women industrial workers, we soon learned that we had but scratched the surface. It is a prodigious problem, one that will require much study and the use of a lot of good common sense in working out a proper formula.

To our notion, the place to start is in the employment office of the plants. The first question to be asked is, "Why do you seek this employment?" We know of numerous instances in which women have said they have gone to work just because a neighbor did; others have indicated that they like the idea of a personal pay check. One summed

it up in this wise: "Well, its just the difference between a cloth coat and a fur coat, come next Fall!"

We believe the employment manager should delve into the family history a bit. If the applicant is the mother of young children, that fact should be taken into consideration. While we agree that women are needed in wartime industry, we also believe there are plenty to fill this demand without taking from our children the right to a mother's care.

One suggestion is to the effect that these "wards of industry" be turned over to the County Welfare Department, and we are told that it is even suggested that they be interned in central children's homes. We are further advised that the Federal Government has made a sizeable appropriation for such a purpose, the plan to be first tried out in a large city of northern Indiana.

Lord, deliver us from such things! We've got to make tanks, airplanes, shells and bullets; we've got to make a lot more things to kill off undesirable races and peoples; *but cannot this be done without sacrificing the home life of our children?* We have a real problem before us; it must be solved and the medical profession will do well to get into the plans for the solving ere a group of impractical, semi-trained individuals take complete charge and raise billyhell with a problem that needs be approached with utmost care.

Editorial Notes

James A. Emmert, attorney general of Indiana, has ruled that physicians in the United States Public Health Service are not required to have licenses to practice within the state. He held that such physicians are officers of the United States; therefore do not need individual state licenses.

A number of Hoosier physicians are planning to attend the abbreviated session of the American Medical Association, to be held in Chicago, beginning June seventh. The House of Delegates, together with several of the more important committees and councils, will carry on their usual routine even though there will be no general or special scientific session.

Mayor Joseph E. Finerty, of Gary, has advised his planning board that a hospital for contagious diseases should be the No. 1 item for consideration by that body and has suggested that the Lake County Medical Society be called in for a conference in the matter. Lake County, the second largest in the state, has practically no facilities for this type of cases.

According to press reports the Indiana chiropractors already have begun their plans for a campaign for a separate licensing board two years hence. It is announced that a "two-year legislative and educational campaign" is to be instituted at once. For more than twenty-five years this group has been endeavoring to put through such a program, each time meeting defeat in the legislature.

Your Federal Narcotic permit expires as of June thirtieth and should be renewed immediately. You probably have already received this notice from Will Smith, Collector of Internal Revenue, and it would be well to attend to the little matter right now. This is one of the taxes that Uncle Sam is quite particular about — not that he overlooks the numerous other items that come throughout the year, but he does want narcotic registrations right on time; in fact, he is so insistent that he threatens the "Five and Ten" penalty or some part thereof for those who are negligent in the matter.

Some months ago we commented on a statement by the Surgeon General of the United States Navy, Dr. Ross McIntyre, to the effect that the death rate among the casualties in the South Pacific was less than one-half of one per cent. Now comes a statement from the Navy's Bureau of Medicine and Surgery covering the same subject, and with the astounding information that of over 4,000 casualties in this area, there were but seven deaths. As Doctor McIntyre had stated previously, this remarkable record is due to several things; the injured men are given treatment immediately after receiving their wounds — there is plenty of medical and nursing help available — and, last but not least, the advances made in recent years in the management of such cases, notably the newer methods of treating burns and the generous use of the sulfa drugs.

We fear that the vacation program for the average physician will be very much muddled this year; not that vacations are not desirable, even necessary, but the vacation as we knew it in former years is just out for most of us. No longer can we plan long motor trips. Train travel has become quite a problem and even many of our resort and fishing spots are either closed or are being operated on a limited basis. It is our opinion that the Indiana state parks and the various lakes and streams will be thoroughly "combed" by Hoosier disciples of Isaak Walton during the present season. But doctors *should* take a little time off now and then through the summer season, even if it is for but a day or two. Most of us have been going at top speed and an occasional letup will do us a lot of good. So plan to do something for a little rest from the daily duties; it will pay big dividends in the matter of personal health.

Rollen W. (Henry) Waterson, executive secretary for the Lake County Medical Society, wants the people of that county to know that the charge of lagging in the matter of enlistment in the Medical Corps of our armed forces was erroneous, in so far as that particular county is concerned. Twenty-eight per cent of the local membership had gone into service during the first few months of our participation in the war.

Doctor E. A. King, the new full-time health officer for Evansville, reports a sizeable epidemic of trench mouth disease in that city, estimating that early in April there were some seven hundred and fifty cases reported. Along with health officials in other communities, Evansville is anticipating an increase in meningitis cases during the remainder of the year. This fear was recently expressed by a state health board official, and we note similar comment from many other states. It seems that in time of war health officials find it advisable to be on the "double alert."

The *Marion County Mail* apparently does not like certain provisions in an amendment to the dental law, as enacted by the recent Indiana General Assembly, editorially referring to a provision therein to the effect that dental advertisments shall be limited as to space occupied, among other things. The editorial is headed "Dentists Are Getting Worse Than Doctors," and in concluding it takes a poke at the medical profession. The writer says, "The dentists are following the doctors in trying to prevent their profession from advertising. It has been suggested to us that in the future the printing of names of physicians and dentists in social items be put in six point type. Sounds good to us." We are constrained to wonder if the point rationing of raw meat has so affected the writer of this editorial as to make him "hog wild!"

"If your Journal does not reach you on time—
If it is thinner than it was last year—
If there are not so many pretty pictures—
If fewer news items appear about you and your colleagues—
If the variety of papers published is not as good as it was last year—
If sometimes there seems to be a preponderance of war-slanted articles—
In short, if you don't find this Journal quite as pleasing to you as it once was—
Just blame Hit, Hiro and Muss—
Then go out and buy an extra war bond this month and help us finish the job—
And don't forget, while you're at it, to fill out those war stamp books your youngsters have stacked away in the library."

—*Southwestern Medicine*, April, 1943.

We are in receipt of the fifteenth Anniversary Number of The *Hebrew Medical Journal*, published in New York. This is a semiannual, bilingual magazine which for some time has been coming to our desk and which we find to be a well-edited, readable journal. The current number carries a symposium on Peripheral Vascular Diseases, which should prove interesting and informative to those especially interested in this subject. Another feature of this publication is the biographical section, which treats of the activities of Jewish leaders in medicine throughout the world.

The following is quoted from the annual report of the Central State Hospital, for 1942, and merits re-printing:

"The war in the Far East has seriously threatened the supply of quinine. Before the outbreak of hostilities Java produced about ninety per cent of the world's supply of this drug. Concern has been voiced in medical and military circles for the future supply of effective anti-malarial remedies. There always will be the necessity of providing the fighting troops in countries with tropical or semitropical climate with an effective drug, both for prevention and treatment of malaria.

"The Central State Hospital with its well-organized ward for malaria therapy is an ideal proving ground to test new anti-malarial remedies. Here at all times from four to six patients carry tertian or quartan malaria plasmodia under experimentally-controlled conditions. At the present time the hospital is testing the effect of a new anti-malarial preparation on patients undergoing malarial treatment for general paresis."

County medical societies continue to advise their folk to "take it easy" in the matter of medical care and to use common-sense judgment in their demands on the few doctors remaining at home. The Monroe County (Bloomington) Medical Society recently asked the residents of the community to adopt a "Four Point Plan," as follows:

1. Make all calls for service in the morning if possible so that the doctor can plan his schedule of home calls and avoid unnecessary travel.
2. Don't ask your doctor when or if he is going into service. (The procurement board for doctors determines who goes and who stays.)
3. Don't require your doctor to make home calls after 6:00 p. m., unless it is an emergency. Unless the doctor is absolutely necessary, let him get some sleep.
4. If at all possible, go to your doctor's office and don't ask him to come to your home during office hours. Learn what your doctor's office hours are and then avoid calls during those hours.

President's Page

Fighting Men Need Nurses!

Wherever we turn we hear of the urgent need for nurses in our armed forces. The setup for recruitment of nurses is purely on a voluntary basis. It is under the direction of the American Red Cross and all bona fide nursing agencies. These organizations have devoted all their efforts toward the recruitment program, yet they have failed to recruit enough nurses to meet the desired quota.

No plans for a draft of nurses are afoot. As a matter of fact, a draft of just one woman's profession or group is not possible. Nurses, as women, could be drafted only in case Congress would authorize a draft of all women.

Why does this shortage of nurses exist? Surely it cannot be the age limit, which is forty-five years, nor is it the pay which, at the beginning, is $150.00 per month, with a promotion in rank and pay open to all nurses who join the Nursing Corps. No nurses in the armed forces are privates; they all enter as officers. This, of course, is not true of men who are drafted or who volunteer for service.

By enlisting in the Nursing Corps of the armed forces nurses will be doing a tremendous service for the injured and ill service men. One of these men could well be our colleague, our brother, nephew, or perhaps our neighbor, and I am sure that we, as physicians, would feel that servicemen should have the best nursing care.

The public has not as yet awakened to this great need for nurses in the armed forces. If it had, many would deny themselves of excessive nursing care. This would ease up the load on private-duty nurses, thereby releasing more nurses for military duty.

Physicians, I believe, can help relieve this condition to a certain extent by making the need known to the public, to hospital administrators, and especially to their patients. The public must be made conscious of this shortage, and I know of no better place to begin than with the information which physicians may disseminate.

Some of the things which cause a shortage of nurses are quite well understood by the medical profession. Many nurses who are of military age are married and have families to care for, many are in ill health, and many are employed by physicians as secretaries or assistants. Industry has absorbed many nurses; public health and school nursing has absorbed many more. It might well be said that any nurse who is employed by a physician as an assistant, one who is employed by industry, or one employed by school units, et cetera, who is physically fit and is of military age with no immediate dependents, should enlist for military duty.

The following is quoted from a letter received at the Indianapolis Chapter of the American Red Cross, from Major General Magee of the United States Army:

> "We appreciate the strain that is being placed on civilian hospitals and schools of nursing by the nursing demands of the present emergency. However, we feel sure that you, like all other Americans, will be satisfied with no less than the best nursing care for our troops.
>
> "It is absolutely necessary that the Army secure nurses with administrative and teaching experience. They can render an invaluable contribution in teaching and supervising the new units that are constantly being organized. At the beginning of this expansion there were forty-three installations in the United States, and there are now over four hundred and fifty exclusive of those overseas. Many of these units are general hospitals with more than one thousand beds, and each requires not less than four nurses with administrative ability to establish a satisfactory service.
>
> "At the beginning of the war there were less than 700 nurses in the Army Nurse Corps; in the past two years approximately 23,000 have been added. From the foregoing you can readily understand why the Army, too, needs nurses wtih executive experience if we are to fulfill our purpose.
>
> "Nurses have been urged to consider thoughtfully where they can serve best and to discuss it with their employers. Every nurse makes her own decision and enters the Army Nurse Corps on a voluntary basis. Having made her own decision, if requirements are met we do not feel that her application should be refused regardless of her position in civilian nursing."

Data recently released by the American Medical Association provide a partial answer to the question, "Why are more nurses so urgently needed?" They indicate a startling up-surge in the use of hospitals on the register of the American Medical Association.

> "IN 1942:
> Nearly one million more patients were admitted to hospitals than in 1941.
> Nearly fourteen and one-half million more patients days of hospital care were provided than in 1941.
> Over a quarter of a million more babies were born in hospitals than in 1941.
> Over two million more subscribers (individual and family) enrolled in Blue Cross (group hospitalization) plans than in 1941."

Therefore, in view of the foregoing, it behooves every Indiana physician to urge nurses, who are available, to enter the Nursing Corps of the armed forces!

J. H. McCarthy

NURSES NEEDED IN THE ARMED FORCES

MRS. G. D. FRENCH

Chairman of the Nurse Recruitment Committee of the American Red Cross for the Indianapolis Area

INDIANAPOLIS

The American Red Cross has been designated by the Surgeons-General as the official recruiting agency for the nursing personnel of the Army, Navy and Air Forces. Recruiting stations have been established in Chapters located in cities with a population of 25,000 or more.

Indiana has seventeen recruiting areas, each having a recruiting station where applications and adequate and accurate information on the various branches of military nursing services is provided. A nurse recruitment committee, composed of nursing leaders and lay members in each area is responsible for this program.

Red Cross Enrollment is not obligatory. Nurses who choose to join the service directly may do so at any of these stations, but all credentials will be evaluated and the applicant's eligibility determined by the Red Cross Nursing Service. Assignments will then be made by the military.

Nurses enter the Army and Air Forces with the relative rank of a second lieutenant in the Army and ensign in the Navy, and receive a monthly base pay of $150.00. The value of "allowances" for this grade is estimated to increase the value to $216.00 per month. Promotion to the higher ranks carries the same pay increases as in other branches of the Army or Navy.

Nurses who demonstrate the qualities of leadership can be reasonably sure of promotion in the military. Several Indiana nurses have already received promotions, and we have many more whom you know who possess these fine qualities which you have helped develop.

During this emergency nurses are classified as Reserve Nurses when assigned to active service, and agree to serve for the duration plus six months. They are subject to all privileges and responsibilities of any military officer of comparable rank, including government insurance and retirement privileges.

Nine hundred and ninety-six nurses is Indiana's 1943 quota for the armed services. *We are not meeting our quota* and are calling upon Indiana physicians to help in this effort.

In war, as in peace, the individual nurse turns to the doctor for guidance because she respects his opinion and acts upon his advice.

You can help in this recruitment effort by disseminating correct information relative to this program; impressing the public with the fact that they can not expect nursing as "usual" and, most important, encouraging eligible nurses to enter service.

We appreciate the strain that will be placed on civilian staffs by the demands of war. However, we feel sure that you, like all other Americans, will be satisfied with no less than the best nursing care for our troops.

According to national authorities on war service, Indiana has not as yet supplied enough nurses to the armed forces to jeopardize its nursing service to civilians.

May we have your loyal and effective co-operation to clear Indiana's record?

Will you do just one more thing to help win this war? Let each physician be responsible for *one* nurse entering service during 1943.

Your Red Cross

Needs

Nurses for War Duty

EXTRA RATION POINTS FOR SPECIAL DIETS*

During the emergency of the present world conflict it has become necessary to ration food in this country. The reason for this is so well known that discussion thereof is unnecessary. Although at this time it has become imperative to restrict only a limited number of foods, it is more than likely that sooner or later there will be a shortage of most foods in some localities, at least a part of the time. Since such a dilemma certainly will befall us, the government, the medical profession and the dietitians must co-operate to satisfy the dietary needs of everyone. The task will not be an easy one. It will involve production, transportation, processing, distribution, and marketing facilities—all of which will be handicapped, to a greater or less degree, by a scarcity of trained employees.

FOOD RATIONING BOARDS

During the past year the government has organized food rationing boards which are serving every community. These boards are composed largely of personnel untrained in dietetics. The members are voluntary workers who contribute their time and energy, day in and day out, to aid in the present emergency. They are subservient to the state OPA, which in turn receives its instructions from the OPA Bureau in Washington. The state and local boards are authorized to increase quotas in cases where health may be impaired. They expect the physician to advise them concerning the needs of such patients. In order to assist the medical profession and the rationing boards, the present OPA Committee of the Indiana State Medical Association was appointed at the request of the state OPA. The work herewith presented was done to establish *maximal amounts* of food that certain special diets would require.

The committee decided that patients who are under treatment for diabetes mellitus, peptic ulcer, colitis and obesity should be placed upon a preferred list. Their diets are computed and in many instances are weighed. Substitution of available unrationed foods is undesirable and may lead to serious complications.

In arriving at the maximal quantities these cases will need, several questions had to be considered. The *total diet* must be adequate for the afflicted person to carry on his occupation even though he may be a manual laborer. It is needless to say that the vast majority of patients will need much less food than specified here, and their physicians should use discretion in certifying the amount of food required. *Food as purchased* does not yield an equivalent amount of edible food. The committee has taken this into consideration and has

* This article has been prepared by the combined effort of the OPA Committee of the Indiana State Medical Association and a Committee of Dietitians from Indianapolis hospitals.

DIABETIC DIET

MENU: CARBOHYDRATE, 200 grams **PROTEIN, 120 grams** **FAT, 150 grams**

	Approximate Measure	*Weight in Grams*	
Breakfast:			
Eggs	3		
Crisp bacon	4 strips, 3¼ inches long	15	
Cooked cereal	One scant 8 oz. cup	200	
Whole milk	10 ozs. or 1¼ cups	300	
Cream	1 oz., or 2 tablespoons	30	
Bread	One average slice	30	
Butter	1 pat, or 2 teaspoons	10	
10% Fruit	One whole medium-sized orange or ½ average-sized grapefruit	100	
Noon:			
Lean cooked meat	Piece about 4" x 4" x ½"	100	
Potato	One medium, about 2½" diameter	90	
Vegetables, other than potato:			
Two average servings (about ⅝ cup each cooked)		200	
Butter	2½ pats, or 1 tablespoon and 2 teaspoons	25	
Bread	One average slice	30	
Whole milk	7 ozs., or one glass	210	
Cream	1 oz., or 2 tablespoons	30	
10% Fruit	One medium peach or 2 slices of pineapple	100	
Night:			
Eggs	Two		(for 8 days)
or American cheese	Piece about 3" x 2" x ½"	70	(for 8 days)
or Cream cottage cheese	6 tablespoons	90	(for 8 days)
or Lean ham	Piece about 4" x 3½" x ½"	60	(for 8 days)
or Salmon (or other fish)	Piece about 3" x 3" x ½"	60	(for 8 days)
Vegetables, other than potato:			
Two average servings (each about ⅝ cup)		200	
Bread	1½ average slices	45	
Butter	2 pats	20	
Whole milk	10 ozs. or 1¼ cups	300	
10% Fruit	One large serving, or one average serving, 15% fruit—pears, apricots	150	

NOTE: A standard eight-ounce measuring cup and standard measuring spoons are the more accurate ones to use.

expressed totals in terms of "food as purchased." As an example, meat as purchased includes bone, tendons, fat, and skin. Many meats shrink as much as 40 per cent when cooked. Ordinarily one can expect a loss of about 50 per cent in shrinkage and waste. Bacon will shrink as much as 60 to 70 per cent when cooked crisp. *Processed foods* will need to be used almost exclusively in some communities, while unrationed foods will be available in others. The amounts specified may refer either to rationed or unrationed foods, and the physicians and their patients should use good judgment in tabulating their requests. The *family income* also may become a factor. Fresh foods in season may be more or less expensive than processed foods. Reasonable consideration of costs will be necessary for families with restricted income. *Variety* in the diet has been considered in our computations.

The necessary amount of food specified in this report has been expressed in dozens, pints, quarts, or pounds. As a general rule one pound of a vegetable is practically equivalent to the content of a Number 2 can, whereas there is but three-fourths of a pound in a Number 2 can of water-packed fruit. Neveretheless, there is considerable variation in the amount of solid food in cans from different processors. Because of frequent changes in the point value of foods, it has seemed unwise to express food amounts in points. We recognize that portions allowed normal persons will probably be changed from time to time, but the necessary pounds of food for diseased individuals will continue constant. This has influenced us in listing the total required diet rather than the excess over and above what each person is allowed on the present allotment.

In addition to giving a summary of food requirements, the committee is submitting a sample menu to illustrate the amount and distribution of food that we consider maximal for each disease.

DIABETIC DIET

MAXIMAL TOTAL FOODS FOR SIXTY DAYS

Eggs	**17 dozen**
Meats—Beef, lamb, pork, bacon, etc., including fish, American cheese and cottage cheese	**40 pounds**
Butter	**8 pounds**
Cream	**10 pints**
Milk	**50 quarts**
Bread—Cereal, rice, macaroni, etc.	**17 pounds**
Potato	**12-15 lbs.**
Vegetables—other than potato	**50 pounds**
Fruits (51 No. 2 cans)	**42 pounds**

LIBERAL ULCER DIET

MENU: CARBOHYDRATE, 250 grams **PROTEIN, 110 grams** **FAT, 160 grams**

	Approximate Measure	*Weight in Grams*
Breakfast:		
Cooked farina or oats	3/4 cup	150
Soft-cooked egg	One	50
White toast	1 1/2 average slices	45
Butter	2 pats, or 4 teaspoons	20
Whole milk	8 ozs., or 1 cup	240
Cream	1 oz., or 2 tablespoons	30
Strained orange juice	4 ozs., or 1/2 cup	120
10:00 A.M. Nourishment:		
Whole milk	5 ozs., or 5/8 cup	150
Cream	2 ozs., or 1/4 cup	60
Soda crackers	2 crackers 2" square	6
Noon:		
Lean cooked meat	Piece 4" x 3 1/2" x 1/2"	90
Potato	One medium, about 2 1/2" diameter, or 5/8 cup diced	90
Pureed vegetable	1/2 (scant) cup	100
White toast	1 1/2 average slices	45
Butter	2 pats	20
Whole milk	5 ozs., or 5/8 cup	150
Cream	1 oz., or 2 tablespoons	30
Fruit	One average serving, as one medium canned peach or one small pear	100
2:30 P.M. Nourishment:		
Whole milk	5 ozs., or 5/8 cup	150
Cream	2 ozs., or 1/4 cup	60
Soda crackers	2 crackers 2" square	6

(Liberal Ulcer Diet—continued.)

	Approximate Measure	*Weight in Grams*
Night:		
Crisp bacon	4 slices about 3¼" long	15
Egg	One	50
Cooked rice	½ cup	100
Pureed vegetable	½ (scant) cup	100
White toast	One average slice	30
Butter	2 pats	20
Whole milk	8 ozs., or 1 cup	240
Strained orange juice	4 ozs., or ½ cup	120
Bedtime Nourishment:		
Whole milk	5 ozs., or ⅝ cup	150
Cream	2 ozs., or ¼ cup	60
Soda crackers	2 crackers 2" square	6

LIBERAL ULCER DIET

MAXIMAL TOTAL FOODS FOR SIXTY DAYS

Eggs	**10 dozen**
Meat—Cheese, bacon, chicken, fish, etc.	**38 pounds**
Milk (whole)	**72 quarts**
Cream	**31 pints**
Butter	**8 pounds**
Bread—Cereal, macaroni, rice, etc.	**24 pounds**
Potato	**15 pounds**
Vegetables—other than potato (includes loss by puréeing)	**48 pounds**
Fruit	**54 pounds**
Recommended: (1) Processed fruits	***24 pounds***
(2) Orange juice	***30 pounds or 15 quarts***

SMOOTH DIET FOR COLITIS

MENU: CARBOHYDRATE, 250 grams **PROTEIN, 100 grams** **FAT, 160 grams**

	Approximate Measure	*Weight in Grams*
Breakfast:		
Eggs	Two	
Crisp bacon	4 strips, 3¼" long	15
Cooked cereal	¾ of one 8-oz. cup	150
White toast	2 average slices	60
Butter	2 pats, or 4 teaspoons	20
Whole milk	1 average glass	200
Cream	2 ozs., or ¼ cup	60
Strained orange juice	6 ozs., or ¾ cup	180
Noon:		
Lean cooked meat	Piece about 4" x 4" x ½"	100
Potato	One medium-sized, 2½" diameter, or ⅔ cup diced	90
Pureed vegetable	½ cup	120
White bread	1½ average slices	45
Butter	3 pats, or 2 tablespoons	30
Whole milk	1 average glass	200
Cream	2 ozs., or ¼ cup	60
Pureed fruit	1 cup	200
Night:		
Eggs	Two	(for 15 days)
or American cheese	Piece 3" x 2" x ½"	45 (for 15 days)
or Cream cottage cheese	4 tablespoons	60 (for 15 days)
or Salmon (or other fish)	Piece 3" x 3" x ½"	60 (for 15 days)
Cooked rice	½ cup, or cooked noodles, or cooked spaghetti—½ cup	100
Pureed vegetable	½ cup	120
White bread	1½ average slices	45
Butter	2 pats, or 4 teaspoons	20
Whole milk	1 average glass	200
Cream	2 ozs., or ¼ cup	60
Pureed fruit	¾ cup	150

SMOOTH DIET FOR COLITIS

MAXIMAL AMOUNTS FOR SIXTY DAYS

Eggs	14 dozen
Meat—Bacon, beef, pork, lamb, cheese, etc.	39 pounds
Butter	9 pounds
Cream	23 pints
Whole milk	38 quarts
Bread—Cereal, rice, macaroni, etc.	27 pounds
Potato	15 pounds
Vegetables—other than potato (requires 58 No. 2 cans)	58 pounds
Fruit—all processed fruits (requires 72 No. 2 cans)	66 pounds
Recommended: (1) Processed fruits	*42 pounds*
(2) Orange juice	*12 quarts*

Note: When fruit is sieved 50% is wasted and double the amount must be purchased.

OBESITY DIET

In reduction diets the committee considers present food allowances to be adequate except that there may be a need for extra amounts of green vegetables and fruits. The total amount of food for a 1200-calorie reduction diet over a period of sixty days will require:

Vegetables—3% and/or 6% (48 No. 2 cans) 48 pounds
Fruit—10% and/or 15% (45 No. 2 cans).... 36 pounds

As time passes, many new and varied problems about food rationing will arise. Most physicians will be able to compute the requirements without assistance, but if the help of this committee is needed, an inquiry directed to the Office of the Indiana State Medical Association will be given due consideration.

OPA Committee of the
Indiana State Medical Association

ABSTRACTS

PASTEURIZATION OF ALL DAIRY PRODUCTS ESSENTIAL IN CONTROL OF BRUCELLOSIS

Careful pasteurization of all dairy products is an essential safeguard against milk-borne brucellosis, it is pointed out in *The Journal of the American Medical Association* for January 30 in a report on a milk-borne epidemic of the disease in Marcus, Iowa. The report is presented by I. H. Borts, M.D., Iowa City; D. M. Harris, M.D., Le Mars; M. F. Joynt, M. D., Marcus; J. R. Jennings, B.A., and Carl F. Jordan, M.D., Des Moines.

From their findings the investigators also advise that hogs should not be permitted to run on the same lot with dairy cows and that prevention of the occurrence of brucellosis in human beings requires a continuing program and effective measure for the eradication of the disease among farm animals. The epidemic at Marcus, involving seventy-seven persons, was caused by a strain of the organism causing brucellosis which was traced to a raw milk supply. It was found that hogs had been allowed to mingle freely in the same pasture with the dairy cows.

MULTIPLE VITAMIN COMPOUNDS

Multiple vitamin compounds have been added to the United States Pharmacopeia, *The Journal of the American Medical Association* reports in its May 1 issue. *The Journal* says:

"Shortly after the establishment of the therapeutic importance of vitamins, the United States Pharmacopeia undertook to provide standards and assay methods. At first the action of the Pharmacopeia was confined to individual vitamins; when the U.S.P. XII appeared in 1942 their employment in combination similar to those found in foods was so thoroughly accepted by medical authorities that the Pharmacopeia found it advisable to provide recognition and standardization for an increasingly large number of these substances. The latest U.S.P. preparations of vitamins, the 'Hexavitamin' (six vitamins) Capsules and Tablets, the 'Triasyn B' (three synthetic B vitamins with liver) Capsules, Tablets and Injections, have all been approved by authoritative medical groups and were added to the Pharmacopeia at the request of the Office of the Surgeon General of the Army for special use among the troops. These forms of vitamin combinations are commonly sold as 'Multiple Vitamins' for the 'Hexavitamin type,' and as the 'B-Complex' for the 'Triasyn B type.' Neither synthetic pyridoxine hydrochloride nor calcium pantothenate was added to the 'B-Complex' type on the recommendation of the National Research Council and the Council on Pharmacy and Chemistry of the American Medical Association, since these compounds have not yet had sufficient clinical study to justify definite therapeutic claims. However, the new 'Liver B-Vitamins Concentrate' and 'Injection,' and 'Dried Yeast' and 'Dried Yeast Tablets' were introduced to furnish elements of the B complex when these were needed. The U.S.P. Vitamin Advisory Board as now established has the following membership: Dr. C. A. Elvehjem, University of Wisconsin, Madison, Wis.; Dr. C. G. King, scientific director of the Nutritional Foundation, Inc., New York; Dr. E. V. McCollum, Johns Hopkins University, Baltimore; Dr. E. M. Nelson, Vitamin Division, Food and Drug Administration, Washington, D.C., and E. Fullerton Cook, Philadelphia, chairman. The scientific standing of this board gives assurance of careful scientific evaluation."

MATERNITY AND INFANT CARE FOR WIVES AND INFANTS OF MEN IN MILITARY SERVICE

THURMAN B. RICE, M.D.*
ROBERT E. JEWETT, M.D.†

INDIANAPOLIS

The Congress passed and the President approved on March 18, 1943, a War Emergency Act providing for medical and hospital maternity and infant care for the wives and infants of enlisted men in the armed forces of the United States. This Act provides for a grant of funds to State Health agencies, to establish and maintain needed services.

Due to somewhat misleading articles regarding this proposed program, released by national news services, there has been misunderstanding of similar programs already in operation.

Since the Indiana State Board of Health has for some months had a somewhat similar but very limited program in operation, there has been a tendency to confuse this program with that made possible by Congressional action. In order to obviate further misunderstanding, it will be necessary to outline services made available in the past, as well as future plans, to extend services in accordance with the Wartime Emergency Measure.

The position of the medical profession of Indiana in regard to this problem is clearly stated in the following editorial which appeared in the *Indianapolis Star* of May 11, 1943:

AID FOR WAR MOTHERS

Members of the Executive Committee of the Indiana State Medical Association have recognized a difference between the paternalism of the New Deal and an obligation to care for wives and children of enlisted men in the armed services. The committee announced that the Hoosier medical society will co-operate in a Federal financing plan which provides medical and pediatric care for dependents of service men whose income is insufficient to pay for such medical treatment.

The Indiana association members pointed out that they had supplied medical care for wives and children of service men in the past and would continue to do so in the future. The Hoosier doctors are prepared to accept the program for the duration of the war and, of course, they will be ready as ever to provide treatment where no other provisions are available. The Hoosier profession always has been ready to contribute services to deserving individuals, regardless of military or civilian needs.

The doctors make it clear, however, that the maternal and infant care program should be a wartime measure applying only to enlisted men or others receiving low pay. The state organization at last September's regular meeting opposed the plan of Federal financing authorized by Congress, fearing that it would be the prelude to state medicine.

The phase of fostering socialism in Federal doles for medical care was not mentioned by the Indiana committee members. The profession as well as the public in general, however, should be alert to prevent expansion of an emergency treatment to establishment of state medicine under political doctors, with all the mediocrity and standardization inescapable under such bureaucracy.

Existing Services

Under the original and at present existing program, services for the families of enlisted men have been limited to a small area of special need—namely, Marion County and the Fort Benjamin Harrison military area. Upon receiving information from the military authorities and the local chapter of the American Red Cross regarding needs in this area, the Indiana State Board of Health set aside a portion of its regularly allotted funds to provide maternity and pediatric care for the wives and children of enlisted men. In co-operation with the military authorities, Army Emergency Relief, American Red Cross, and the representatives of the Indiana University Medical Center, a plan was worked out to provide prenatal, delivery, and postpartum care of wives, and pediatric care of children under ten, through the use of the staff and hospitals of the Indiana University Medical Center, Indianapolis.

Arrangements were made with the authorities of the Indianapolis City Hospital and Methodist Hospital, Indianapolis, to provide care if the facilities of the university proved inadequate. Care under this program is limited to maternity care and pediatric care of the wives and children of men in the armed services of the fourth, fifth, sixth and seventh grades. This excludes the families of commissioned officers; master, major, first, technical, staff and platoon sergeant, and of chief, first, and second class petty officers.

* Secretary of the Indiana State Board of Health.
† Director of the Bureau of Maternal and Child-Health of the Indiana State Board of Health.

Referral of eligible applicants to the university hospitals has been made by the Station Hospital at Fort Harrison, the Army and Navy Emergency Relief officials, and local officials of the American Red Cross. Due to the proved adequacy of the facilities and certain indicated special needs, this original service has been recently and temporarily extended to the Camp Atterbury area, including Johnson, Bartholomew and Brown counties. Physicians may procure these services for the wife or child of an enlisted man through the local chapters of the American Red Cross.

Proposed New Services

Under the new Wartime Emergency Act, funds will now be available for a much broader program to be extended to all parts of the State. However, because of the broader scope of the services available, many administrative details will need to be worked out, and the fullest co-operation of all interested agencies must be obtained. It will not be possible to give this program state-wide coverage immediately, but all counties will be given the benefit of services as rapidly as possible. As each county is included, county physicians, local hospitals, and local health and welfare authorities will be provided with full information. It must be emphasized that it may require weeks or even months before this end is entirely accomplished.

Now, what are the details of this Emergency Act, what are its limitations, and how will services be rendered?

At a meeting of the Executive Committee of the Indiana State Medical Association, May 9, full co-operation was pledged to the fulfillment of this concrete and necessary undertaking. It was decided that methods of providing medical care will be worked out by the Indiana State Board of Health with the aid of a technical advisory committee of the Indiana State Medical Association—the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health. Methods of providing hospital care will be worked out with each hospital participating in the program. Administration will be provided by the Bureau of Maternal and Child-Health of the Indiana State Board of Health, acting primarily as a disbursal agency, co-operating with practicing physicians and hospitals giving care.

Eligibility

Any woman in the state, irrespective of legal residence, whose husband is an enlisted man (alive, deceased, or missing in action) in the armed forces of the United States of the fourth, fifth, sixth or seventh grades, may make application for obstetric care for herself or medical or hospital care of her infant child under one year of age.

Method of Application

Application for available services will be made through the family physician, who will submit completed forms (to be prepared) to the Director of Maternal and Child-Health of the Indiana State Board of Health. The physician will verify the eligibility of the applicant and will designate the medical and hospital service to be rendered.

Method for Authorization of Requests

The Director of the Maternal and Child-Health Bureau of the State Board of Health will authorize care for all eligible applicants and will promptly notify the applicant, the attending physician and the hospital, if hospital care is recommended. In addition, when application is made other types of services may be authorized, such as service of consultants in specialized fields, special bedside nursing service, and transportation of patients.

Method for Payment of Services

After completion of medical or hospital care and after submission of properly executed reports of care, payment will be made directly to the physician, hospital or other agency providing authorized service.

Schedule for Payment of Medical, Hospital, and Other Costs of Care

It should be emphasized that under this Act every effort will be made to provide a fair and just fee for medical, hospital, and other services. To this end a schedule of medical fees will be prepared by the advisory committee of the Indiana State Medical Association and the Indiana State Board of Health.

Hospitals will be paid for the actual cost of care, and a per diem cost rate will be established with each individual hospital, since there will be variations. Other services such as bedside nursing care and transportation will be provided at the established local prevailing rates.

Services Which May Be Made Available in Addition to Those Covered by the Act

By the use of pre-existing funds not allotted under the Emergency Act, it may be possible to provide some additional care, such as pediatric care of children over one year of age, clinical and medical supervision of presumably well children, et cetera. Announcements will be made when additional services are available.

Status of Entire Program at the Moment of This Writing

Details as to medical fees remain to be worked out by the advisory committee of the Indiana State Medical Association and the Indiana State Board of Health. Arrangements with individual hospitals must be made, and necessary forms and approved channels for these forms must be established.

Until physicians, hospitals, and local health and welfare agencies receive detailed information regarding the operation of the program, the services will be limited as described in the program established before the passage of the Emergency Act of March 18.

MEDICAL PROFESSION PLEDGES CARE FOR NEEDY WIVES AND CHILDREN OF SERVICE MEN

Members of the Executive Committee of the Indiana State Medical Association and Dr. Thurman B. Rice, State Health Commissioner, prepared a statement in regard to "Maternity and Infant Care for Wives and Infants of Enlisted Men" at a meeting held at the Columbia Club, Indianapolis, on May 9, 1943. The members emphasized that the medical profession of Indiana will continue to provide medical care for needy wives and children of men in the service, just as it has in the past.

"In regard to the problem of maternity and pediatric care of wives and children of enlisted men in the armed forces, this question in concrete form was presented to the medical profession for the first time Sunday, but as yet no definite plan has been considered. The Executive Committee of the State Medical Association is sure that action taken by Congress and the State Board of Health with regard to maternity and pediatric care of needy wives and children of enlisted men will meet the hearty co-operation of the medical profession of the state of Indiana."

GROSS INCOME TAX STATUS OF MILITARY PERSONNEL

A bulletin has been prepared by Gilbert K. Hewit, director of the State Gross Income Tax Division, explaining the enactment of H. B. 2, passed by the legislature and signed by the governor on March 10, 1943. This bill amends the Gross Income Tax Act by wholly exempting military pay of personnel in active service of the armed forces of the United States and providing for deferment of tax on all other income of such military personnel. The exemption privilege is effective as to military pay received after December 31, 1941.

In accordance with the provisions of this amendment the status of military personnel is as follows:

1. MILITARY PERSONNEL as used herein includes enlisted and commissioned personnel of the United States Army, Navy, Marine Corps, Coast Guard, and all persons who by the United States military authorities are detailed and draw military pay for active duty with any of the above-mentioned military service branches.
2. EXEMPT INCOME: The compensation of military personnel received as military pay after December 31, 1941, for active service during the war is wholly exempt from tax for the duration of the war. No report of such income is necessary. Exemption shall not extend to compensation received after members of the armed forces have been discharged from service. Nor shall exemption apply to any military pay received for services in the armed forces after the termination of hostilities of the present war.
3. TAXABLE INCOME:
   A. MILITARY PAY: Compensation received by military personnel on or before December 31, 1941, as military pay is taxable. However, the reporting of such income for taxation may be deferred without penalty as hereinafter provided.
   B. OTHER INCOME: Income of military personnel other than military pay is taxable regardless of the time of receipt. Deferment of reports and tax is also applicable to this type of income whether it was received before military service began or is received during such service.
4. DEFERABLE REPORT OF TAXABLE INCOME: With respect to all income of military personnel, other than income received as military pay for active services during the present war, the report thereof and payment of tax thereon may be deferred without penalty or interest until the expiration of six months following the cessation of the war or following the discharge or retirement from service of such military personnel, whichever occurs first. When report of income is eventually made the gross income tax return shall show the military unit of which the person was a member and the time of his induction and discharge. The observance of this deferment privilege is optional and any member wishing to pay tax currently may do so.
5. DELINQUENCY: Military personnel who were delinquent in tax payments at the time of their induction into the armed forces will have such delinquency suspended until the expiration of six months following the date of the termination of hostilities or their discharge and no additional penalties or interest will be added on account of such suspension. Delinquent charges suspended during the war will again attach six months after the termination of hostilities (or discharge from service, whichever occurs first) on all taxes then due and unpaid under the provisions of the law.
6. FORGIVENESS OF TAX IN CASE OF DEATH: In case any member of the armed forces owing tax (whether it be on military pay earned prior to December 31, 1941, or on other income) dies before the expiration of the six months' period following his discharge or end of the war, such tax will be wholly waived and forgiven and no return

need be filed by executors or survivors. Any such tax unpaid at the time of death will not be a lien against the estate of such person.

7. REFUNDS: Any tax paid by members of the armed forces upon military pay received after December 31, 1941, will be refundable, and upon application by such members, or by their executors or survivors, such tax will be refunded by the department with interest of 3 per cent from the time it was paid. Claims for refunds must bear the identifying designation of the military unit and serial number of the individual.
8. PEACE-TIME SERVICE REMUNERATION: No exemption of military pay is granted to personnel of the United States military services in time of peace and no deferment of tax is permissible beyond the expiration of the six months' period following the termination of hostilities, or discharge, whichever occurs first.
9. RESIDENCE STATUS: In order to inform members of the armed forces as to their residential status during the war, the following excerpt from the Soldiers' and Sailors' Relief Act of 1942 is quoted herewith:

"SEC. 514. For the purposes of taxation in respect of any person, or of his property, income, or gross income by any state, territory, possession, or political subdivision of any of the foregoing, or by the District of Columbia, such person shall not be deemed to have lost a residence or domicile in any state, territory, possession, or political subdivision of any of the foregoing, or in the District of Columbia, solely by reason of being absent therefrom in compliance with military or naval orders, or to have acquired a residence or domicile in, or to have become resident in or a resident of, any other state, territory, possession, or political subdivision of any of the foregoing, or the District of Columbia, while, and solely by reason of being so absent. For the purposes of taxation in respect of the income or gross income of any such person by any state, territory, possession, or political subdivision of any of the foregoing, or the District of Columbia, of which such person is not a resident or in which he is not domiciled, compensation for military or naval service shall not be deemed income for services performed within, or from sources within, such state, territory, possession, political subdivision, or District. . . ."

TRIBUTE PAID TO MEDICAL PROFESSION

Our readers need no introduction to Ernie Pyle, an Indiana man whose reports of the Tunisian campaign we have accepted as the best and most authentic information coming out of Africa. In an article on the Tunisian battle, published in the *Indianapolis Times* of May 13, 1943, Mr. Pyle not only pays a tribute to our physicians but portrays the sacrifices made by those who served on the battlefields during the fall of Tunisia. His account of the Tunisian situation is so revealing and meritorius that we are taking the liberty of quoting his report, so that all of our members may have an opportunity to read it:

"I hope somebody in this war writes a book about the medics at the front. I don't mean the hospitals so much as the units that are actually attached to troops and work on the battlefields under fire.

"They are a noble breed. They and the telephone linemen deserve more praise than I have words for. Their job is deadly, and it never ends. Just in one battalion several of the battlefield medics have been killed, and a number decorated.

"But noble as it is, it seems to me—and to the doctors themselves—that our battlefield medical system isn't all it should be. There aren't enough stretcher bearers in an emergency, and in a recent battle at which I was present some of our wounded lay out as long as twenty hours before being brought in.

"The work of the medics comes in peaks. If they had enough stretcher bearers for all emergencies there would be thousands of men sitting around most of the time with nothing to do. Yet when an emergency does come and there are not enough, it's an awful thing.

"Wounded men have a rough time of it in this rocky, hilly country of Northern Tunisia. It is hard enough to walk when you aren't carrying anything, but when two or four men are lugging two hundred pounds on a stretcher it is almost impossible to keep on their feet.

"I have seen litter bearers struggling down a rocky hillside with their heavy burden when one of them would slip or stumble on a rock and fall down, and the whole litter would go down, giving the wounded man a bad shaking up.

"We've heard stories about the Germans shooting up ambulances and bombing hospitals, and I personally know of instances where those stories are true. But there are also stories of just the opposite nature. Many of our officers tell me the Germans have fought a pretty clean war in Tunisia. They do have scores of crafty, brutal little tricks that we don't have, but as for their observance of the broader ethics of war, our side has no complaint.

"One battalion surgeon told me of running his ambulance out onto a battlefield under heavy artillery fire—whereupon the Germans stopped shelling and stayed stopped while he evacuated the dead and wounded for eight hours.

"I've heard other stories where our ambulances got past German machine-gun nests without knowing it until the Germans came out and stopped them and, seeing they had wounded, waved them on. And so far as our doctors know, the German doctors give our captured wounded good medical care—as we do theirs also, of course.

"In the last war nerve cases were called 'shell shock.' In this war they're called 'anxiety neurosis.' About 50 per cent of our neurosis cases are recoverable, and even return to fighting units.

"Surgeons sometimes spot neurosis cases that they suspect of being faked in order to get out of the front lines. Their system is to put these men on stretcher-bearer duty—a hard, thankless, dangerous task. If they are faking they get well quickly and ask to be returned to their regular outfits."

Medicine Today

LABORATORY NOTES

This is the fourth of a series of short notes in which will be outlined various aspects of the use of laboratory tests. The increasing burdens of medical practice make it desirable to use all possible means to facilitate the care of patients, and the use of laboratory aids in the diagnosis and management of cases may often save time if the tests are carefully chosen to suit the needs of the moment. It is hoped that these notes may be helpful to the physicians of the state, and that they may be the means of saving a few minutes of their precious time.

USEFUL LABORATORY TESTS IN THE MANAGEMENT OF CASES OF JAUNDICE

Many of the laboratory tests which are used in the study of cases of jaundice are employed for the purpose of differentiating the various types of jaundice from one another. Some tests are used to follow the progress of the case and to observe the effect of treatment. Others are necessary in estimating the prognosis. There are many kinds of jaundice, and the identification of the types is of paramount importance. For practical purposes most cases of jaundice may be divided into three main types:

1. Obstructive jaundice.
2. Hepatic, or non-obstructive jaundice.
3. Hemolytic jaundice.

There are many laboratory tests which may be used in the management of cases of jaundice, but in these notes it is not possible to mention them all, nor is it possible to discuss in any detail the interpretation of the results of the tests. However, an attempt will be made to list the tests most commonly used and to indicate the purpose for which each test is intended. It is unlikely that all laboratories will be prepared to conduct all of the tests mentioned, but all laboratories will be able to perform the greater number of these tests, and most cases of jaundice may be studied effectively by means of a judicious selection of the laboratory procedures which are locally available.

A. Tests of Primary Importance

1. Icterus index.
2. Urinalysis.
3. Complete blood count.
4. Serologic test for syphilis.
5. Prothrombin time.
6. Bleeding time.
7. Coagulation time.
8. Erythrocyte fragility test.
9. Alkaline serum phosphatase.
10. Cephalin flocculation test.

B. Additional Useful Tests

1. Stool examination.
2. Serum bilirubin.
3. Van den Bergh reaction.
4. Reticulocyte count.
5. Erythrocyte diameter.
6. Duodenal drainage.
7. Blood cholesterol.
8. Liver function tests:
   a. Galactose tolerance test.
   b. Bromsulphthalein test.
   c. Hippuric acid excretion test.

DISCUSSION

A. Tests of Primary Importance

1. *Icterus index. Range of normal values: 3 to 6 units.*

   The measurement of the icterus index is the simplest and most convenient test for the detection of jaundice and for the estimation of the degree of jaundice. In most cases the icterus index is as useful as the bilirubin determination and is much simpler and less expensive. Repeated tests will show the increase or decrease of the jaundice.

2. *Urinalysis.*

   In addition to a routine urinalysis which will detect renal complications and diabetes, the urine should be examined for:

   Bilirubin, which is invariably present in cases of obstructive jaundice and usually to a lesser degree in hepatic jaundice.

   Urobilinogen, which is present in increased amounts in the hemolytic types of jaundice and in hepatic jaundice, but absent or decreased in obstructive jaundice.

3. *Complete blood count. Normal range of erythrocytes: 4 to 5 million per cu. mm. of blood. Normal range of leukocytes: 5 to 9 thousand per cu. mm. of blood.*

   In the hemolytic types of jaundice a complete blood study will usually be found helpful in making the diagnosis of the type of hemolytic process which is affecting the patient.

   The erythrocyte count will be decreased in cases of congenital hemolytic jaundice, pernicious anemia, and in cases of internal hemorrhage, and it will be increased in cases of polycythemia vera.

   The leukocyte total and differential counts will be helpful in indicating the presence of infection, in which cases there may be an increase in the total count and a shift to the left in the granulocytic series of leukocytes.

4. *Serologic test for syphilis.*

It is desirable to make a serologic test for syphilis to rule out the possibility of a syphilitic hepatitis.

5. *Prothrombin time. Range of normal values: 90 to 110 per cent of the normal time.*

An adequate blood prothrombin level is necessary for blood clotting and the most convenient method of estimating the amount of prothrombin in the blood is the measurement of the prothrombin time. If there is a decrease in prothrombin, the prothrombin time will be prolonged. In obstructive jaundice and hepatic jaundice the blood prothrombin may be decreased, which accounts for the tendency of the jaundiced patient to bleed. Therefore, the measurement of the prothrombin time is very important, especially when surgery is contemplated. The prothrombin level may change very rapidly, so the test should be repeated frequently, especially during the days immediately after operation. The danger of hemorrhage is particularly grave if the prothrombin time falls below fifty per cent of the normal. The efficacy of treatment may also be measured by the changes in the prothrombin time.

6. *Bleeding time. Range of normal values: 2 to 5 minutes.*

The measurement of the bleeding time is another but much less dependable method of estimating the bleeding tendency of the patient.

7. *Coagulation time. Range of normal values: 2 to 10 minutes.*

The estimation of the blood-clotting time is a further means of estimating the tendency of the patient to hemorrhage. This method is much less dependable and accurate than the prothrombin time.

8. *Erythrocyte fragility test. Range of normal fragility:*

Beginning hemolysis in 0.45 per cent NaCl.
Complete hemolysis in 0.35 per cent NaCl.

In congenital hemolytic jaundice the erythrocytes show an increased fragility, and the finding of a normal red cell fragility is good evidence that the jaundice is not due to this condition.

9. *Alkaline serum phosphatase. Range of normal values: 1.5 to 4 Bodansky units per 100 cc. of blood serum.*

In obstructive jaundice the serum alkaline phosphatase level usually rises in parallel with the serum bilirubin and may reach a value of 30 Bodansky units per 100 cc. of blood serum. In non-obstructive jaundice the level seldom rises above 10 units.

10. *Cephalin flocculation test. Normally: no flocculation.*

In this test the amount of flocculation is considered a good measure of hepatic damage. Marked flocculation is usually a bad prognostic sign and a contraindication for surgery. Changes in the amount of the flocculation may be used as an indication of the course of the case.

B. Additional Useful Tests

1. *Stool examination. Normally both bilirubin and urobilinogen are found in the stool.*

The brown color of the stool is caused by the presence of bile pigments, and the absence of this color is good evidence of biliary obstruction, whereas periodic absence of the color suggests intermittent biliary obstruction.

In addition to the visual examination of the stool, qualitative or quantitative tests may be conducted for the presence of the following bile pigments:

Bilirubin, which is absent in complete biliary obstruction and decreased in partial obstruction.

Urobilinogen, which is usually increased in hemolytic jaundice and in most types of hepatic jaundice. In complete biliary obstruction the fecal urobilinogen level is markedly decreased, and in partial obstruction it is decreased in proportion to the obstruction.

2. *Serum bilirubin. Range of normal values: 0.1 to 0.25 milligrams per 100 cc. of serum.*

The determination of the amount of bilirubin in the blood serum is the most accurate method of measuring the degree of jaundice. For practical purposes the icterus index gives the same information and is simpler and less expensive.

3. *Van den Bergh reaction.*

In early obstructive jaundice the van den Bergh reaction is usually direct, while in hemolytic types of jaundice it is indirect. In hepatic jaundice the reaction is biphasic or "mixed," and in the later stages of obstructive jaundice the reaction usually becomes biphasic. Because the findings are so frequently inclined to be confusing, the van den Bergh test is not being used as commonly as in the past.

4. *Reticulocyte count. Range of normal values: 0.1 to 1.0 per cent of erythrocytes.*

An increase in the number of reticulocytes is an indication of increased red cell production by the bone marrow and is found in hemolytic jaundice. It should be recalled that the reticulocyte count may rise following extensive hemorrhage and in the early days of liver therapy in pernicious anemia.

5. *Erythrocyte diameter. Average normal erythrocyte diameter: 7.5 microns.*

In congenital hemolytic jaundice the average red cell diameter is less than normal, and in the jaundice due to pernicious anemia the average diameter is increased. In other

types of jaundice the erythrocyte diameter is usually normal.

6. *Duodenal drainage.*

Examination of the material removed by duodenal drainage is sometimes helpful since the absence of bile is positive evidence of biliary obstruction and the presence of cholesterol crystals and calcium bilirubinate particles is suggestive of the presence of biliary calculi.

7. *Blood cholesterol. Range of normal values: 140 to 250 milligrams per 100 cc. of blood.*

In obstructive types of jaundice the total blood cholesterol is usually increased and the increase is roughly proportional to the degree of obstruction. Other causes of an increase in cholesterol should be ruled out if possible.

8. *Liver function tests.*

The liver has a number of functions, and no one test is very likely to yield dependable information concerning more than one of these functions. However, a few tests have proved helpful in the detection of liver damage, and three of these will be mentioned.

a. *Galactose tolerance test.*

This test measures the ability of the liver to metabolize carbohydrates. Normally after the ingestion of 40 grams of galactose the urinary excretion of galactose ranges from none to 2 grams in the next five hours. If the excretion amounts to from 2 to 3 grams the test may be considered weakly positive for liver damage, and if the excretion exceeds 3 grams the test is definitely positive for liver damage.

b. *Bromsulphthalein test.*

This test measures the ability of the liver to excrete the dye bromsulphthalein. The dye is injected intravenously and the amount remaining in the blood after half an hour is measured. If more than 5 per cent of the injected dye remains in the blood after half an hour, liver damage may be suspected, and retention of 50 to 100 per cent of the dye is evidence of severe liver damage. It is not considered desirable to use this test in the presence of a serum bilirubin level of more than 5 milligrams per cent.

c. *Hippuric acid excretion test.*

This test measures the ability of the liver to detoxify benzoic acid by transforming it into hippuric acid, which is then excreted in the urine. Normally more than 3 grams of hippuric acid are excreted in the urine in the four hours following the administration of 6 grams of sodium benzoate, but if this excretion is 1.5 grams or less it is considered evidence of liver damage.

ABSTRACT: SAY THAT INFECTED PROSTITUTES SHOULD BE DENIED THEIR LIBERTY

"If the state can call on a man for his life in this grave emergency, surely the common welfare demands that the 'right' of an infected prostitute to be at liberty while still infectious be disallowed, at least for the duration of the war," Hyman Strauss, M.D., and Isaak Grunstein, M.D., Brooklyn, declare in *The Journal of the American Medical Association* for April 10 in a report on their findings from a study of 615 women with gonorrhea who were hospitalized at the Kingston Avenue Hospital, Brooklyn.

"We feel," they explain, "that a prostitute, although treated, remains potentially infectious for approximately three months, during which time, if at large, she is a source of infection and as such forfeits her right to the benefit of doubt.

"The cure of an infected prostitute requires adequate compulsory hospitalization. Repeated offenders should be interned for the duration and compelled to aid in the war effort. If the law now does not adequately remove this public health hazard, as it does in most contagion, remedial statutes should be enacted toward that end. . . ."

The two physicians report that their "study of 615 hospitalized gonorrheal patients shows that 60 grains of sulfathiazole daily for one week gives a 95 per cent apparent cure rate. The administration of sulfathiazole or sulfapyridine to the failures increases this rate to 98.9 per cent.

"This very high cure rate must, however, be carefully scrutinized in order to determine the permanence of our immediate results. It must be ascertained in each case whether there has been sufficient treatment and an adequate period of observation.

"Furthermore, and most important, it must be determined whether the criteria of cure employed are sufficient to ensure protection of the public against further infection.

For example, the two men explain that out of the group of women they studied 109 infected patients were discharged by the Department of Health by special releases before treatment was completed. Drs. Strauss and Grunstein say that "Assuming that only 100 of these 109 girls return to prostitution as a livelihood, and allowing them sixty-five days for idleness and menses, and granting the average number of daily exposures to be even less than their admitted minimum of twenty, approximately half a million men could be infected in a year while the girls are under private medical care and yet continue to practice their profession at the same time. The futility of follow-up in ambulant patients whose very livelihood depends on deliberate and persistent re-exposure is obvious. When, in addition, the asymptomatic carrier is considered, the problem is complicated manyfold. . . ."

The average period of hospitalization for those women studied who had gonorrhea alone was thirty-one days and for those with gonorrhea and syphilis forty-five days. Most of them were between 20 and 30 years of age, the youngest being 16 years and the oldest 49 years.

"In our opinion," they say, "at least four consecutive negative cultures and smears should be made at weekly intervals and the patient should be clinically negative and be under a further period of observation for at least six weeks before she can be reasonably regarded as noninfectious. Additional studies will prove whether it is safe to decrease the dosage, treatment time and the period of observation. The ultimate desideratum of cure in female gonorrhea will be the failure to reproduce the infection after human exposure. . . ."

Deaths

Walter F. Carver, M.D., pioneer Albion physician who had for many years served the Indiana State Medical Association and the Noble County Medical Society in various capacities, died at a local hospital on May eleventh.

Doctor Carver was born at Portland Mills, Indiana, on September 10, 1866, and was seventy-six years of age at the time of his death. He graduated from the Fort Wayne College of Medicine in 1892 and began the active practice of medicine at LaOtto, later moving to Albion where he has resided continuously since 1896.

Walter F. Carver, M.D.

As a member of his community, Doctor Carver was loved and respected by everyone. In professional and civic affairs he served as a public servant continuously; having been president of the board of the Town Council for twenty-one years, and having served as county coroner several terms. He had fostered practically every civic improvement in his home town. " 'Tis said of him that the reason God gave him such a large body was to make room for the great heart within him, and wherein is enshrined a great and enduring love for all humanity —a stout heart, able, willing and anxious to carry the burden of others," was the sentiment expressed by his fellowmen.

Doctor Carver's record of service with the local and state medical organizations proves his interest in promoting the medical profession. For twenty-three years he served as secretary of the Noble County Medical Society, being their present secretary. The Indiana State Medical Association owes Doctor Carver a tremendous debt, for he had served this organization in various capacities since 1911, when he was a member of the Committee on State Medicine. In 1916 he was the third vice-president. In 1930 and 1931 he was a member of the Committee on Legislation and Public Policy; in 1930 he was a member of the Committee on Secretaries' Conference; in 1933 he was vice-chairman of the Medical Section; from 1933 inclusive of 1935 he was an alternate to the American Medical Association; and from 1935 until the time of his death he was the chairman of the Committee on Credentials.

Doctor Carver was a member of the Noble County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

The Indiana State Medical Association concurs with Dr. Shanklin in his tribute, "Long will the memory of Walter F. Carver remain in the annals of Indiana Medicine."

Gaylard M. Leslie, M.D., of Fort Wayne, died at his home on April sixth. He was sixty-five years of age. He graduated from the Fort Wayne College of Medicine in 1900. Doctor Leslie was a member of the Fort Wayne (Allen County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

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Donald W. Schafer, M.D., of Fort Wayne, died April twelfth, at the age of forty-eight. He was a graduate of the University of Cincinnati College of Medicine, in 1924. He was a veteran of World War I. Doctor Schafer was a member of the Fort Wayne (Allen County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

Joseph E. Stults, M.D., of Fort Wayne, died on May sixth. He was eight-six years of age. He graduated from the Fort Wayne College of Medicine in 1886.

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Howard F. Steele, M.D., of Claypool, died on May tenth. He was forty-eight years of age. He graduated from the Indiana University School of Medicine, Indianapolis, in 1920. Doctor Steele was secretary of the Kosciusko County Medical Society from 1939 until the time of his death. He was a member of the Indiana State Medical Association and a Fellow of the American Medical Association.

Military News

Lieutenant Ralph Arisman, formerly of South Bend, is stationed at Opa Locka, Florida.

Major George Plain recently visited at South Bend. He is stationed at Camp Beale, California.

Captain Ralph McDonald was recently at home in Mishawaka on a leave of absence. He is stationed at a quartermaster training post in Cheyenne, Wyoming.

Dr. Dudley Pfaff, of Indianapolis, has been promoted to the rank of lieutenant colonel and is serving at Stout Field, Indianapolis.

"I'd gladly trade all the African tulip trees, hybiscus, orchids, etc., for a good glimpse of an apple orchard in bloom," is the comment of Captain C. J. Aucreman, formerly of Montpelier, who is now serving in the armed forces in Africa.

Lieutenant Ralph V. Everly, formerly of Indianapolis, recently graduated from the Medical Field Service School of the Army at Carlisle Barracks, Pennsylvania.

Captain George D. Colip, former South Bend physician, is attached to a Medical Gas Treatment Battalion at a camp in Louisiana. This is an organization training to treat gas casualties and is the first of its kind the Army has ever had.

We have received word that Dr. J. T. Farrell, formerly of Indianapolis, was promoted to a captain on April thirteenth. Captain Farrell entered the service last July, with a commission of first lieutenant, and was assigned to a general hospital unit at Colorado Springs. Later he was transferred to Denver, and is now stationed at the Bushnell General Hospital at Brigham, Utah, where he is serving as plans and training officer of the unit.

Squadron surgeon in Air Corps Service Group is the assignment of Captain E. T. Baumgart, of Indianapolis, who is now serving somewhere overseas. We quote from one of his letters as follows: "Practice of medicine is no different here than elsewhere, except the environment. Flies and mosquitos are our big problem. Our dispensary is a converted stone barn with a pet owl that is more effective against rats than our traps." Captain Baumgart's address is Headquarters Squadron, Service Group, AAF, A.P.O. 762, c/o Postmaster, New York City.

Word has been received to the effect that Major Edward M. Sirlin is serving in Newfoundland.

Lieutenant Joseph Caton, of South Bend, is located at Camp Swift, Austin, Texas.

Captain Comiel M. Malstaff, of South Bend, is now training at Carlisle Barracks, Pennsylvania.

Captain John Marsh, of Blountsville, is chief of the medical service at the Army Air Base at Blythe, California .

Captain W. L. Porter, of College Corner, Ohio, is now serving somewhere in England.

Former South Bend physician, Captain Ernest Dietl, was recently home on a leave of absence. He has been transferred from Bermuda to Tampa, Florida.

Captain Aaron L. Arnold recently visited with his family in Indianapolis during a leave of absence. He has been in the service about ten months, and was recently promoted from a lieutenant to a captain. Captain Arnold was formerly at Camp Carson, Colorado, but is now with the general hospital at Chickasha, Oklahoma.

Word has been received of the promotion of Dr. A. N. Ferguson, of Fort Wayne, from the rank of major to lieutenant colonel. He is now chief of the medical staff of the Oliver General Hospital, Augusta, Georgia. Before going to Augusta he was stationed at the Fitzsimmons Hospital at Denver, Colorado, the Field Hospital at Camp Butner, Durham, North Carolina, and the Walter Reed Hospital, at Washington, D.C.

"Well, here I am at a submarine base dispensary. My work is in the dispensary, which is really a 200-bed hospital complete with laboratory and x-ray service. My particular work is as head of the medical service. . . . I see that many of the boys are flying. Well, I've gone the other way; I have been down in a submarine. . . . I am picking up a few new medical and surgical procedures here as I come in contact with various men and procedures. One is spinal anesthesia, which is used very widely in Navy practice with very satisfactory results." This information is quoted from a letter written by Lieutenant Commander W. W. Ayres, formerly of Hartford City, who is now serving at New London, Connecticut.

Captain Marion Hillman, of South Bend, is taking a course in tropical medicine at the Walter Reed Hospital, in Washington, D.C.

Promotion from the rank of major to lieutenant colonel has been given to Dr. Jay F. Havice, former Fort Wayne physician. Colonel Havice is now serving as executive officer of the station hospital at Camp Edwards, Massachusetts.

Lieutenant I. S. Hostetter, of Muncie, is a ward officer at the Station Hospital at the Salina Air Base, Salina, Kansas. He says, "The important thing is that it looks as if we might be gradually winning a war."

Dr. Stanley M. Hammond, formerly of Indianapolis, has received promotion from lieutenant junior grade to senior grade. His present address is Barrage Balloon Activities, Camp Lejeune, New River, North Carolina.

Captain Joseph O. Flora, of Indianapolis, is doing Army field medical and surgical work with the Infantry overseas. He writes: "I am with the boys; eat, sleep and live with them. When the going gets tough with them, then likewise it is tough with me. At the present time I am a battalion surgeon with the same outfit that I started out with in 1941." Captain Flora can be reached through A.P.O. 986, c/o Postmaster, Seattle, Washington.

When Lieutenant John C. Glackman (shown by arrow) returns to Rockport, we hope that he will come in and explain to us the enigma of the Sphinx. This picture was taken during a visit made to the pyramids and the Sphinx near Cairo, Egypt. Lieutenant Glackman has been overseas since last October, serving with a Medical Corps unit which set up a field hospital somewhere in Africa.

Captain Marshall I. Hewitt, who has been stationed at Carlisle, Pennsylvania, stopped in South Bend for a few days before going to Alabama.

Teaching laboratory technique is the assignment of Lieutenant Eugene Hildebrand, former Muncie physician, who is with the School for Medical Department Enlisted Technicians at the Fitzsimmons General Hospital, Denver, Colorado.

Major Howard Hill, formerly of Muncie, has been chief of the eye, ear, nose and throat service at a station hospital in Chicago, but has recently been made a medical inspector.

Captain F. E. Kirshman, of Muncie, is now stationed at the O'Reilly General Hospital, Springfield, Missouri.

Lieutenant J. T. Oswalt, of Dunkirk, is now stationed somewhere in Australia.

Lieutenant James G. Shanklin, formerly of Hammond, who has been located at San Marcos, Texas, has been temporarily transferred to Corsicana, Texas.

Captain George A. May, of Madison, who has been in service overseas since last September, recently arrived in New York. He is at the Halloran General Hospital, Staten Island, New York, where he is receiving treatment for an injury sustained in service, but he is reported to have stated that his condition is not serious.

We are grateful to Captain Russell L. Arbuckle, formerly of Indianapolis, for his interesting message from "Somewhere in North Africa":

"THE JOURNAL has followed me wherever I have been stationed since joining the armed forces, and it has been a vital link connecting me with home and Indiana Medicine. Today I received the March issue and as I sit here in my tent tonight reading the Military News in 'THE JOURNAL', I am prompted to write a line or two. There are no other Indiana officers in our outfit, but we have a swell bunch; are keeping plenty busy and giving good account of ourselves. There are many details of interest that I would like to relate, but most of them will have to be reserved for a later date. I noticed in the March JOURNAL that Major Herbert Sedam was at Fort Knox. I would like to inform you that he is over here, too. One morning quite some time ago a big truck came lumbering down the road, and who was on it but 'Herby.' We exchanged greetings, saw each other a couple of times afterwards, and now we are separated again, but he is around here somewhere. Good luck to you all. We are getting along swell."

Dr. Horace M. Banks, of Indianapolis, who was leaving for service in the armed forces, was an honor guest at a bon voyage dinner given by staff members of the Methodist Hospital at the Columbia Club on April twenty-eighth. Talks were given by Dr. C. H. McCaskey and Dr. Walter P. Morton, both of Indianapolis. Dr. Banks has been commissioned a major in the Army Medical Corps.

"The censor permits me to tell you I am in New Guinea. Where, of course, is a military secret. . . . Tojo has paid us a couple of visits since I have been here. He has headed this way several times but has been turned back. The recent destruction of a large number of Jap vessels was a marvelous piece of work by the Allied Air Force. Tojo really ran into a hornet's nest. . . . Fish have always been one of the main articles of food of the Japs. Now it seems that Japs are one of the main articles of diet of fish. Ripley might uncover something better. Our Air Corps was a busy bunch those days. They shuttled back and forth continuously." The above information is quoted from a letter written by Major John Lansford, former Redkey physician, who can be reached through A.P.O. 929, San Francisco, California.

Lieutenant Colonel Charles F. Thompson of General Hospital, No. 32, Camp Bowie, Texas, has again favored us with news items concerning this unit:

It is with profound regret that the officers of the 32nd General Hospital, making up the complement of professional personnel, face the loss of several of their good friends and comrades after two months' of military service, with the transfer of the following medical officers to new posts:

Major James Browning—119th Station Hospital, Camp Swift, Texas; Major Paul Iske—119th Station Hospital, Camp Swift, Texas; Captains John Hash and Elisha Metzger—6th Field Hospital, Camp Bowie, Texas; Captain Thomas Johnson—120th Station Hospital, Camp Barkeley, Texas; Captain Jack Ferry—to a special research job in the East; Lieutenant Lee Maris—302nd Station Hospital, Camp Livingston, Louisiana; Lieutenant Stephen Johnson—258th Station Hospital, New Orleans, Louisiana; Lieutenant J. N. Topolgus—728th Railway Operating Battalion, Clovis, New Mexico; Lieutenant Doyle Pierce, D. C.,—7th Field Hospital, Camp Bowie, Texas. While the loss of these men has been felt personally, it has not weakened or left vacancies in the unit, because this number of men was declared as excess personnel, since late 1942, by the Surgeon General in revision of the table of organization for general hospitals.

We were glad to receive as visitors, on Sunday, May 9, men from Indiana—former classmates of some of us. Lieutenant Ray Henderson, formerly of Muncie, and a former pediatric resident at Riley Hospital, drove over from Camp Hood, where he has recently been appointed medical inspector at camp headquarters. Captain Winter and Lieutenant Beaver, the former on the medical staff of a division, and the latter on the orthopedic section in the station hospital at Camp Barkeley, spent the afternoon renewing acquaintances. Both these men were on the resident staff at the Indianapolis City Hospital in 1941-42. Lieutenant Colonel Thompson and Major Hippensteel expect to visit Major D. L. Smith and Majors Bob Dearmin and Russell Spivey, who are attending a school of aviation medicine near Austin, Texas.

The medical officers who feel themselves reasonably proficient in the school of the soldier are beginning to look to their laurels, for the nurses who have been drilling diligently in our camp area are also taking on the appearance of a precision drill squad. Two recent additions have been made to this group in the persons of Lieutenant Joan Duffey of the dietetic staff and Lieutenant Sally Johnson of the physical therapy staff.

The volley ball court continues to be quite a center of activity in the early evenings. Arguments between respective teams usually end up in a good-natured free-for-all, with Colonels Clark and Thompson being about evenly matched.

A priority requisition for an alarm clock has been placed for Major Jim Leffel to help him keep his appointments for drill, calisthenics and road marches.

Major Don Wood is one of several officers anxious to exchange uniforms with some new arrival at camp because of a very complimentary shrinkage of his general girth, particularly the waistline.

On the latest long Saturday march everything went quite smoothly on the way back until the order for double time the last two hundred yards caused a vigorous barrage of expletives from the rear ranks, performed in typical Pilcher style and verbiage.

Captains Culbertson, Garber, and Reynolds, the three eligible bachelors in the organization, continue to be prominent in Officer Club activities. Carl Culbertson's increasing interest in scorpions, black widow spiders, rattlesnakes, armadillos and other varments of the countryside has been classed as pernicious by his hut mates who are on the point of moving him and his increasing menagerie out to an isolated spot.

Captain Jim Engler conducted an interesting and variegated skin clinic at the weekly camp medical meeting on May 12.

Major Dennis Megenhardt still leads spontaneous quartet groups in popular (?) renditions at late hours around the hospital area.

On the evening of May 13 a reception was held by the officers, including the nurses, for friends and wives. The occasion was the first anniversary of the commissioning of the 32nd General Hospital in Indianapolis. Moving pictures of the ceremony of a year ago were shown, in addition to movies and colored slides of group activities at Camp Bowie. Refreshments and group songs were enjoyed by all.

WHAT WENT ON DURING WORLD WAR I

(Items from THE JOURNAL of June, 1918)

Franklin H. Martin, of the National Council of Defense, discussed the new setup of the Council, from a medical standpoint, pointing out that hundreds of "dollar-a-year-men" were engaged in this work. This paper was read before a large group of doctors, dentists and nurses at a meeting held in Indianapolis on May 20, 1918.

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Fred R. Clapp, South Bend, discussed "The Repair of Birth Injuries." H. R. Allen, Indianapolis, gave a report on a case in which he had restored a lower jaw in a war casualty. Frank W. Foxworthy, Indianapolis, had written of the advantages as well as the disadvantages of joining the Medical Reserve Corps, and A. G. W. Childs, Madison, had presented an excellent paper, "The Physician's Whole Duty."

* * *

Editorially, THE JOURNAL continued its all-out-for-the-war policy, the lead editorial being entitled, "Doctor, Why Hang Back?" There was editorial comment on the action of the American Red Cross having yielded to the demands of the antivivisectionist group, to the end that experimentation upon animals be no part of the medical research work of our Medical Corps men in France. "War Sacrifices" and a discussion of the patience needed in awaiting a commission after an enlistment concluded the editorial section.

* * *

Medical men had been given four classifications in the matter of enlistment in the Medical Corps:

Class A — Unmarried doctors.

Class B — Married, but no children.

Class C — Doctors having dependents whose income is insufficient.

Class D — Doctors physically unfit, or more than fifty-five years old.

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Dr. William N. Wishard had been elected first vice-president of the American Medical Association at its recent meeting in Chicago.

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Dr. Alexis Carrel, of the Rockefeller Institute, had been promoted by the French government to the rank of Commander of the Legion of Honor.

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The report that Captain Lafayette Page, Indianapolis, was seriously ill, having broken down under the strain of work with Base Hospital No. 32, in France, was unfounded.

* * *

Dr. Joseph Weinstein, Terre Haute, had been ordered to Presbyterian Hospital, Chicago, for special work in war surgery. He was to be transferred to Camp Logan after completion of this work.

At a meeting of health officers, in Indianapolis, a resolution was endorsed to the effect that full-time health officers be declared a wartime necessity and furthering a program looking toward compulsory health examinations in our schools.

* * *

"Shall women physicians be admitted to the Medical Corps on equal terms with the men?" That was a pertinent question of the day — even as now. The editor saw no good reason why this should not be granted.

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The Committee on National Defense had announced their determination to publish a list of "medical slackers" if the enlistment program were not summarily stepped up.

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The annual base pay for medical officers was announced as follows: First lieutenant, $2,000; Captain, $2,400; and Major, $3,000. Allowance for quarters, $36, $48 and $60 per month, respectively.

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Tribute was paid to the medical men who, while not members of the Medical Corps, had given generously of their time as members of the Council of Defense.

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The annual session of the Indiana State Medical Association was to be held in Indianapolis in September; all section programs were to be abandoned; all meetings were to be general in character.

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It seems that numerous politically-minded gentlemen throughout the country were active in trying to get exemptions for the sons of their prominent constituents. (Before the war had ended, this program promised to be quite a scandal.)

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The Wells County Medical Society had adopted resolutions condemning "practice jumpers," the chaps who left their own localities for the "greener fields" made possible by Medical Corps enlistments.

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The "Recruiting Rallies," held on May seventh throughout the state, had been eminently successful, several hundred medical men having offered their services to the Medical Corps.

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The Indiana University School of Medicine announced continuous sessions for the duration.

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Dr. David M. Peyton, medical officer of the Jeffersonville state prison, had been appointed Major in the Medical Corps.

News Notes

Dr. Albert W. Ratcliffe, of Evansville, has been appointed director of the joint city-county health department laboratory.

Announcement has been made of the appointment of Dr. E. S. Jones, of Hammond, as a member of the board of trustees of the James O. Parramore Hospital, at Crown Point.

Dr. Charles W. Myers, superintendent of the Indianapolis City Hospital, was elected vice-president of the Indiana Hospital Association at a meeting held in Chicago on May sixth.

Dr. Frank L. Jennings, superintendent of the Sunnyside Sanatorium, Indianapolis, was re-elected a director-at-large of the National Tuberculosis Association at a meeting held in St. Louis, Missouri, on May sixth. He will serve a two-year term.

Dr. John E. Graf, of Chicago, who was formerly with the Veterans' Hospital at Indianapolis and who had retired several years ago because of his age, has at the age of seventy been inducted into the United States Coast Guard Reserve, as of December 12, 1942.

Dr. F. R. Nicholas Carter, of South Bend, was elected vice-president, and Dr. Don F. Cameron, of Fort Wayne, was elected as a councilor of the Tri-State Medical Society at the seventieth annual meeting of the organization at Ann Arbor, Michigan.

At a meeting of the Board of Directors of the Indiana Tuberculosis Association, held at Hotel Lincoln in Indianapolis on April sixteenth, Dr. James F. Spigler, of Terre Haute, was elected first vice-president; Dr. C. J. McIntyre, of Indianapolis, treasurer; Dr. J. H. Stygall, of Indianapolis, assistant treasurer; and Dr. M. R. Lohman, of Fort Wayne, and Dr. Paul D. Crimm, of Evansville, became members of the Executive Committee.

The Indiana Academy of Eye, Ear, Nose and Throat Specialists held their twenty-seventh annual meeting at the Indianapolis Athletic Club on April twenty-eighth. The new officers are, Dr. O. T. Allen, of Terre Haute, president; Dr. Russell Sage, of Indianapolis, first vice-president, and Dr. Charles E. Savery, of South Bend, second vice-president. Dr. J. Kent Leasure, of Indianapolis, was re-elected secretary. Dr. J. R. Lindsay, of the University of Chicago, was the guest speaker.

U. S. PUBLIC HEALTH SERVICE FEATURED IN FILMS

"Medicine on Guard" is the title of a new RKO film which depicts the story of a typical wartime community faced by urgent health problems arising from the shortage of doctors. Many of the scenes in the picture are taken at the U. S. Public Health Service headquarters at Bethesda, Maryland, and the film as a whole graphically shows how the doctor shortage problem is being solved.

NOTICE!

Dr. P. S. Pelouze of the University of Pennsylvania, will be in Indiana the early part of June and will make a series of talks on "Underlying Principles and Treatment of Gonococcal Infections." Group meetings are being arranged for urologists, gynecologists, residents and interns, venereal disease clinic personnel, and interested physicians. Doctor Pelouze will appear in Evansville, Fort Wayne, South Bend, Terre Haute, the Lake County area, and Indianapolis. He will also speak to medical officers at Camp Atterbury and Fort Harrison, the Indiana University medical students, and will probably conduct a clinic in Indianapolis. Notices concerning definite dates and locations will be sent to local medical societies, may appear in local medical society bulletins, or may be secured from George W. Bowman, M.D., chief of the Bureau of Venereal Disease Control, Indiana State Board of Health, Indianapolis.

The Medical and Surgical Relief Committee of America, a volunteer organization which does considerable work in supplying medical material to agencies requiring such assistance, has issued an urgent appeal to surgeons, physicians and medical supply houses for aid in providing emergency medical kits to Coast Guard patrol boats and Navy sub-chasers. Its headquarters is located at 420 Lexington Avenue, New York City. Among the items sorely needed to equip the emergency kits are artery clamps, splinter forceps, scalpels, probes, grooved directors, sulfadiazine tablets, sulfadiazine ointment 5%, sulfathiazole tablets, and sterile shaker envelopes of crystalline sulfanilamide. Specially designed for sub-chasers and patrol boats, the medical kit is a small portable case filled with essential medications and emergency instruments. It is complete enough to cover accidents and war casualties until the ship reaches a base hospital. Along with medical equipment, the patrol boat and sub-chaser emergency kit contains a simple fishing outfit, prepared bait and signalling mirrors, ready to be used in time of disaster when the crew must resort to life-rafts.

INDIANA UNIVERSITY NEWS NOTES

Twenty-nine December graduates of the Indiana University School of Medicine were on the honor roll recently announced by the Indiana State Board of Medical Registration and Examination. The honor roll consists of newly graduated physicians who make an average of 90 per cent or more on the Board's examination. The number from the Indiana University School of Medicine to receive honor rating is the largest in history, amounting to 28 per cent of the graduating class.

The Indiana University graduates on the honor roll and the place where they are now serving their internships are as follows:

Jim S. Jewett, Carmel, Jackson Memorial Hospital, Miami, Florida; James C. Farr, Paragon, St. Vincent's Hospital, Indianapolis; Kathryn E. Campbell, Boonville, Indiana University Hospitals; Alton Ridgway, Pennville, Indiana University Hospitals; Thomas James, Vincennes, United States Public Health Service; Fletcher McDowell, Muncie, Baltimore City Hospital; Robert C. Weber, Muncie, Cleveland City Hospital; Max Earl, Muncie, Ball Memorial Hospital, Muncie; Evart M. Beck, Anderson, Indiana University Hospitals; Herbert Cormican, Elkhart, Epworth Hospital, South Bend; Vactor Connell, Bloomington, United States Public Health Service; Ward Laramore, Knox, Indiana University Hospitals; James W. Asher, New Augusta, Methodist Hospital, Indianapolis; Ralph E. Faucett, Pershing, United States Navy; Robert F. Barton, Ligonier, West Suburban Hospital, Oak Park, Illinois; Albin A. Jankowitz, Gary, United States Navy; Sherman Minton, Jr., New Albany, United States Navy; Paul DesJean, Indianapolis, Indiana University Hospitals; Ralp V. Kinzie, North Manchester, United States Public Health Service; David L. Tennant, Larwill, Lutheran Hospital, Fort Wayne; Warren P. Ball, Muncie, Cook County Hospital, Chicago; Robert Emmons, Lapaz, Minnesota General Hospital, Minneapolis; Guy Hoover, Boonville, Denver General Hospital, Denver, Colorado; Joseph P. Szokolai, South Bend, Ford Hospital, Detroit; William Horst, Crown Point, Cook County Hospital, Chicago; Ernest A. Iaconetti, South Bend, United States Public Health Service; Edward C. Kattany, Indianapolis, Indianapolis City Hospital; Henry Feffer, Brooklyn, New York, Kings County Hospital, Brooklyn, New York; Gilbert Himebaugh, Speed, Indianapolis, City Hospital.

Students in Indiana University medical and dental schools who are in the Naval Reserve have been advised that the new Navy college training program will be instituted about July 1 in the two schools on the Indianapolis and Bloomington campuses.

Medical and dental students holding reserve commissions have received notices that prior to May 15 they may resign those commissions and re-enlist as apprentice seamen. Those doing so will be placed on active duty status in July, and continuing with their medical or dental education will receive a base pay of $50 per month, uniforms, subsistence or per diem allowance and have their tuition paid by the Navy. Those not electing to resign their commissions will continue in school, but without the pay, subsistence, uniform and tuition allowances.

Approximately one hundred students on the campus of the university medical and dental schools at Indianapolis and Bloomington are affected by the order. Students in the two schools in the Army Reserve groups have not received their orders. On graduation the students in the Naval service will receive lieutenant, junior grade, commissions.

Medical school students in the Naval Reserve are: Clyde Rush, Muncie; Richard Mason, Marion; Frank Hogle, Indianapolis; Charles Gregory, Angola; F. Miller Thornburg, Indianapolis; Robert Kammen, Indianapolis; M. Hunter Smith, West Lafayette; Robert Jay, Indianapolis; Charles Smith, Indianapolis; Glenn L. Marshall, Indianapolis; George Weber, Petersburg; Wallace Vandenbosh, Mooresville; Edward Szaulewicz, South Bend; Robert Schmoll, Fort Wayne; Robert Raber, Indianapolis; William Ridgeway, Evansville; Abe Lebamoff, Fort Wayne; Justain Arata, Mishawaka; William Ford, West Point; James Brennen, Bedford; Robert F. Jones, Vincennes; William B. Douglas, Lafayette; Arvin Henderson, Ridgeville; Loring Unger, Farmland; F. L. Jennings, Indianapolis; John Vanatta, Brookston; Walter P. Anthony, Princeton; Thomas Carpenter, Columbus; Clifford Ernst, Indianapolis; Jack Modisett, Terre Haute; Hugh Williams, Martinsville; Hugh McAdams, Boswell; Leland Brown, Muncie; Carleton A. Keck, Ottumwa, Iowa; Robert Morris, Rochester; John R. Weber, Fort Wayne; Donald Stephens, Marion; Cliff Weithoff, Seymour; Harry Overesch, Lafayette; Walter Shreeve, Muncie; Frank Bussard, South Bend; Ira Faith, Evansville; and Jack Hatfield, Indianapolis.

In the dental school, the following students are in the Naval Reserve: Gordon F. Abbott, Miami, Florida; Robert K. Allen, Hartford City; Iriot Childress, Gary; Leon M. Cohn, Gary; Kent Dawson, Elwood; John W. Hohe, Huntington; Maurice C. Kivett, Greencastle; Samuel McDowell, Vincennes; Paul Yingling, Kokomo; Wendell Aldrich, Angola; Wilbur S. Coon, Rochester; J. T. Esmon, Indianapolis; Aaron Hause, Goshen, Ohio; Joseph Hutton, Hammond; Roger Ish, Waterloo; Ernest K. James, Crawfordsville; Frederic D. Logan, Bourbon; Ralph E. McDonald, Indianapolis; Chauncey C. Parker, Anderson; James R. Shroyer, Vincennes; George W. Simpson, Monrovia; Harold U. Smiley, Grand Rapids, Michigan; Arthur B. Chevalier, Indianapolis; Arthur E. Gustavson, LaPorte; C. Merrell Hudson, Decatur; Robert A. Makielski, Mishawaka; John J. Nussman, Passaic, New Jersey; Robert H. Slinkard, Terre Haute; Robert B. Stone, Indianapolis; William A. Van Horn, Terre Haute; Jack B. Wilkins, Oakland City; William S. Aitken, Terre Haute; Thomas T. Arthur, Dayton, Ohio; Robert N. Berman, Evansville; Ernest R. Ebbinghouse, Wabash; David L. Ferrell, Murfreesboro, Tennessee; William P. Keller, Indianapolis; Daniel R. Lindborg, LaPorte; James F. Matlock, Indianapolis; Charles J. McFall, Shelbyville; W. Carson McGuire, Auburn; James R. Mertz, Brendenwood; R. Quentin Royer, Lagrange; Clark Scholl, Springfield; Jean Spear, Yoder; Paul E. Starkey, Miamisburg, Ohio, and Clifford A. Wicks, Hanna.

Twenty-five physicians from fourteen states and Canada attended the Otorhinolaryngological Postgraduate Course held April 12-24 at the Indiana University Medical Center. Those attending were Drs. Hampson S. Clay, St. Charles, Missouri; Frank H. Coble, Richmond, Indiana; Richard J. Donovan, Quincy, Massachusetts; George G. Fisher, Brooklyn, New York; Gilbert V. Foster, New Bed-

ford, Massachusetts; Antonio Godin, Montreal, Canada; Ely W. Harelik, Detroit, Michigan; Maurice M. Hoeltgen, Chicago, Illinois; A. R. Holmes, Henryetta, Oklahoma; Carl T. Houlihan, West Philadelphia, Pennsylvania; Frank W. Ingram, Rochester, New York; Charles H. Knauer, Trenton, New Jersey; John H. Kupp, Palmerton, Pennsylvania; Valmore Latraverse, Philadelphia, Pennsylvania; George L. Loomis, Winona, Minnesota; Roderick MacDonald, Rock Hill, South Carolina; R. H. Matthews, Morristown, New Jersey; Darius G. Ornston, Philadelphia, Pennsylvania; James S. Perry, Bryan, Texas; Abraham J. Reinhorn, Augusta, Georgia; Merle Russell, Erie, Pennsylvania; Harry B. Stauffer, Jefferson City, Missouri; Ronald J. Walsh, Roselle, New Jersey; C. A. Whitcomb, Philadelphia, Pennsylvania; and Sam E. Widney, Greeley, Colorado.

Twenty medical investigations and studies, some designed to save lives in the war and others likely to improve civilian health in the post-war world, are being carried on by the war-depleted staff of the Indiana University School of Medicine, according to a report presented by Dean W. D. Gatch of the school's research committee.

"Research is going on at the School of Medicine and in the University hospitals despite great difficulties," said Dean Gatch in presenting his report. "Men working on problems considered important to the war and to civilian health are handicapped by lack of time, technical helpers, and adequate space in which to carry on the work."

The medical school research committee, which includes Hugh McK. Landon as chairman; Eli Lilly; Peter C. Reilly; and Dr. H. T. Briscoe, academic vice-president of the University, was told by Dean Gatch that although the school has lost approximately sixty of its faculty members and assistants to the armed services' medical divisions, fifty-nine articles and papers, based on medical studies, resulted from the past year's work.

Research projects being carried on are in several instances by direction of the Army and Navy, and the results must be classed as military secrets until the end of the war, the committee was advised. Others, including inquiry into causes and treatment of shock, especially on the bad effects of overheating patients in shock, conducted by Dr. K. G. Wakim, have been recognized as having great value to Military Medicine.

Members of the medical school faculty and hospital staffs active in research, the committee was advised, include Drs. C. G. Culbertson, R. N. Harger, H. M. Trusler, Frank Forry, T. B. Rice, James O. Ritchey, J. K. Berman, Harold R. Hulpieu, L. T. Meiks, Donald E. Bowman, Lyle A. Weed, James S. Battersby, Thomas B. Bauer, Carl P. Huber, T. F. Schlaegel, Wendell Covalt, and Versa V. Cole.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

March 26, 1943.

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D., and T. A. Hendricks, executive secretary.

The following articles have been written to appear in the series that is being prepared for the *Indianapolis News:*

"Mental Health in War Time."

"The Hospital and the Public During the War Emergency."

Letters are to be written to the physicians who have been asked but who have not yet prepared articles for this series.

Request for speakers:

May 20, 1943—Ninth District Medical Society, Lafayette. Speaker obtained to discuss "What of Medical Practice After the War?"

Report received from the Gallup Committee in regard to "The Incidence of the Common Cold." Suggestion made that this be turned over to a member of the Bureau for a special review and report at the next meeting of the Bureau.

LOCAL SOCIETY REPORTS

Fort Wayne (Allen County) Medical Society members held a meeting at the Chamber of Commerce Building, at Fort Wayne, on April twenty-second.

* * *

Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club on April sixth. Case reports were presented by Dr. Roy Myers, Dr. J. B. Stalker, Dr. Harvey Sigmond, and Dr. T. V. Petranoff, all of Indianapolis.

At a meeting on April thirteenth a quiz program on "Cardiovascular Renal Disease" was held. The physicians participating in the quiz were Dr. George S. Bond, Dr. A. Corcoran, Dr. William E. King, Dr. Kenneth Kohlstaedt, and Dr. John H. Warvel.

Dr. E. O. Asher, of Indianapolis, and Dr. Cleon Nafe, of Indianapolis, were the speakers at a meeting held on April twentieth. Their subjects were "Necessary Differences in Treatment of Elderly Patients" and "Significance of Changes in the Breast," respectively.

On April twenty-seventh, a meeting was held at the Indianapolis Athletic Club and a program was presented by the medical staff of Billings General Hospital.

(Continued on page xxi)

(Continued from page 330)

Carroll County Medical Society members and their wives held a dinner meeting at the Welcome Inn, at Delphi, on April eighth, to entertain the trained nurses of the county. Dr. Charles C. Crampton, of Delphi, and Mrs. Fred C. Smith, of Flora, were the speakers of the evening.

* * *

Delaware-Blackford County Medical Society members held a meeting at the Ball Memorial Hospital, at Muncie, on April twenty-seventh. Mr. J. I. Banash, consulting engineer for the Linde Oxygen Company, presented a paper entitled "The Technical Aspect of Oxygen Therapy." A movie on "Oxygen Therapy" was also shown. Thirty members attended this meeting.

* * *

Hancock County Medical Society members held their April meeting at the Cozy Hotel, east of Greenfield, on the fourteenth. Dr. H. G. Hamer, of Indianapolis, spoke on "Some Important Points in Diagnosis."

At a dinner meeting on May twelfth, Dr. Thomas B. Noble, Jr., of Indianapolis, was the guest speaker, his subject being "Intestinal Plications." This was illustrated with lantern slides.

* * *

LaPorte County Medical Society members met at the Rumley Hotel, at LaPorte, on April fifteenth. Dr. A. S. Giordano, of South Bend, spoke on "Treatment of Shock." Twenty-six members were in attendance at this meeting.

* * *

Monroe County Medical Society members held a meeting at the Graham Hotel, at Bloomington, on March thirty-first. It was a general meeting and local problems were discussed. Eleven members were present.

* * *

Randolph County Medical Society members met at Winchester on April twelfth. Dr. Lowell Painter, of Winchester, was the guest of the evening. His subject was "Post-Concussional Syndrome." Twelve members attended this meeting.

* * *

Elkhart County Medical Society members met at Hotel Elkhart, Elkhart, on May sixth. Dr. H. H. Riecker and Dr. R. H. Lyons, of Ann Arbor, Michigan; and Dr. H. L. Kretschmer, of Chicago, Illinois, were the speakers of the evening. Their subjects were "Differential Diagnosis and Treatment of Hypertension," "Management of the Edematous Patient," and "The Present Status of Trans-urethral Resection in Bladder Neck Obstruction," respectively. Dr. S. T. Miller was presented with a traveling bag in appreciation of his twenty-five years of service as secretary-treasurer. Fifty members were present at this meeting.

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Tippecanoe County Medical Society members met at the Lincoln Lodge, at Lafayette, on April thirteenth. C. E. Roach, of the Eli Lilly Company, Indianapolis, spoke on "Newer Uses of Vitamins." A discussion was held, with slides and a diagnostic movie presenting the subject in a general, concise manner. Thirty-two members were in attendance at the meeting.

WOMAN'S AUXILIARY
to the
Indiana State Medical Association

President—Mrs. Arnold H. Duemling, Fort Wayne
President-elect—Mrs. James W. Baxter, Jr., New Albany
Corresponding Secretary—Mrs. E. M. VanBuskirk, Fort Wayne
Treasurer—Mrs. C. E. Monk, Kendallville

Dr. Carl H. McCaskey, president of the Indiana State Medical Association, and Dr. Homer G. Hamer, chairman of the Advisory Committee of the Woman's Auxiliary to the Indiana State Medical Association, were speakers at a luncheon meeting of the board of the state auxiliary at the Columbia Club on Wednesday, May 5, 1943.

Mrs. Arnold H. Duemling, of Fort Wayne, the auxiliary president, announced the following delegates to the meeting of the Woman's Auxiliary to the American Medical Association, to be held June 7, 8, and 9 in Chicago: Mrs. C. E. Munk, Kendallville; Mrs. Charles F. Voyles, Mrs. Frank M. Gastineau and Mrs. Gerald W. Gustafson, of Indianapolis; and Mrs. E. M. VanBuskirk, Mrs. E. N. Mendenhall, and Mrs. W. A. Ratcliff, of Fort Wayne.

Alternate delegates will be Mrs. M. D. VanCleave, Terre Haute; Mrs. William E. Tinney, Indianapolis; Mrs. Fred B. Wishard, Pendleton; Mrs. I. H. Scott, Sullivan; Mrs. S. J. Petronella, East Chicago, and Mrs. William H. Howard, Hammond.

The annual convention of the state auxiliary will be held September 28 and 29 in Indianapolis, with the auxiliary to the Indianapolis (Marion County) Medical Society as hostesses. Mrs. Gerald W. Gustafson is president of the organization.

Members appointed to the state Finance Committee, of which Mrs. Frank M. Gastineau is chairman, are Mrs. C. E. Munk, Kendallville; Mrs. T. R. Hayes, Muncie; Mrs. J. W. Baxter, New Albany, and Mrs. George Lawler, Indianapolis.

At this meeting the revised constitution was presented for study. Of special interest were the surveys of all the work done by members of the auxiliary in civic and war service in Allen and Marion counties. The former had a complete alphabetical cross-index file of all the doctors' wives, and information as to the kind of work done.

COUNTY NEWS

Marion County held an election of officers on May third at the Methodist Hospital Nurses' Home. An interesting program followed. Mrs. Harry L. Foreman reviewed "Stories Behind the World's Great Music," by Sigmond Spaeth, as a background for various musical numbers, instrumental and vocal.

—Mrs. Emmett B. Lamb, *Chairman pro tem.*

Books

BOOKS RECEIVED

FLYING MEN AND MEDICINE. By E. Osmun Barr, M.D. 254 pages. Cloth. Price $2.50. Funk & Wagnalls Company, New York, 1943.

CHEMOTHERAPY OF GONOCOCCIC INFECTIONS. By Russell D. Herrold, M.D., Associate Professor of Surgery (Urology) College of Medicine, University of Illinois, Chicago, Illinois. 137 pages. Cloth. Price $3.00. C. V. Mosby Company, St. Louis, 1943.

THE PRINCIPLES AND PRACTICE OF WAR SURGERY (With Reference to the Biological Method of the Treatment of War Wounds and Fractures). By J. Trueta, M.D., Assistant Surgeon (E.M.S.) Wingfield-Morris Orthopaedic Hospital, Oxford; Acting Surgeon-in-Charge, Accident Service, Radcliffe Infirmary, Oxford. 441 pages with 144 illustrations. Cloth. Price $6.50. C. V. Mosby Company, St. Louis, 1943.

BOOKS REVIEWED

SYNOPSIS OF PATHOLOGY. By W. A. D. Anderson, M.D., Assistant Professor of Pathology, St. Louis University School of Medicine; Pathologist, St. Mary's Group of Hospitals. 661 pages. 294 illustrations and 17 color plates. Fabrikoid. Price $6.00. C. V. Mosby Company, St. Louis, 1942.

Pathology should include physiology, bacteriology and biochemistry, as well as morphology.

The Synopsis of Pathology includes all of the aspects of pathology. It assumes a knowledge of the fundamentals of pathology.

It contains condensed and simplified statements of the vast material of modern pathology.

It expresses in clear, concise and accurate forms the fundamentals of pathology, always keeping in mind the problems of the practicing physician.

—Will Shimer, M.D.

* * *

FUNCTIONAL PATHOLOGY. By Leopold Lichtwitz, M.D., Chief of the Medical Division of the Montefiore Hospital, and Clinical Professor of Medicine, Columbia University, New York. 567 pages, with 157 illustrations, charts and tables. Cloth. Price $8.75. Grune & Stratton, Inc., New York City, 1941.

This book is a comprehensive study of mechanisms of internal disease, a knowledge indispensable to the general practitioner.

It contains a detailed analysis of the relationships of hormones, autonomic nervous system, endocrine glands, and the hypothalamus; and the biochemistry of the blood in normal and pathological physiology.

Lichtwitz's knowledge of the functional diseases in their clinical and biochemical characteristics is comprehensive, profound and well-balanced.

This book describes many hitherto obscure manifestations of diseases of metabolism, nephritis, thyroid gland, arthritis, and the blood and vascular system.

—Will Shimer, M.D.

EMERGENCY CARE. By Marie A. Wooders, B.S., R.N., Principal, School of Nursing, Hackensack Hospital, Hackensack, New Jersey; and Donald A. Curtis, M.D., Lieutenant-Colonel, Medical Reserve, United States Army, and Instructor in Military Nursing, Hackensack Hospital, Hackensack, New Jersey. 560 pages. 201 illustrations. Cloth. Price $3.50. F. A. Davis Company, Philadelphia, 1942.

The book, **Emergency Care,** is obviously written for nurses, probably primarily as a textbook. The book is well outlined and excellently printed and bound.

There are minor criticisms to be made about the grammar and awkward rhetoric. The major criticism, however, deals with the subject matter. For example, a book on emergency care dealing exhaustively with carbon monoxide intoxication (three separate excerpts from others' writings serially presented) and omitting any reference at all to severed tendons or strangulated hernia leaves much to be desired as a dependable aid for instruction of industrial nurses or aids to our armed forces. The section on Industrial Nursing does not mention the keeping of records, which constitutes one-fourth of an industrial nurse's activities and value.

The sections, describing the organization and personnel of the Army and Navy medical units are interesting and very clearly written

The book, as an outline for a nurses' training course, might be usable if the instructor had sufficient practical experience in that field to supplement and correct it.

A. K. Harcourt, M.D.

DOCTORS OF THE MIND. By Marie Beynon Ray. 335 pages. Cloth. Price $3.00 Little, Brown and Company, Boston, 1942.

Starting with Darwin's theory of evolution as a springboard, the author draws a parallel with the evolution of the knowledge of psychiatry and achievements in other fields of medical research.

The great difference between man and the lower animals is the faculty of speech, and speech is the outward manifestation of thought. The number of words one uses is the best measure of his thought. When one ceases to acquire words he has reached the ceiling of his intelligence. Wherever I.Q. is concerned the most successful people are those who rate highest in word tests. "Words are ideas," the author states. We might interrupt here to make the observation that a person's vocabulary may be a barometer of his intelligence quotient but not necessarily of his success. The author continues with the thought that we must acquire the faculty of speech, a thing we must be taught, or remain ignorant. Speech itself is some sort of physicochemical process. She refers to brain centers and localizations as great association areas in which takes place the synthesis of all activities of the brain that results in thought and action. Mesmerism and hypnotism are referred to as the beginning of treatment of neuroses, but addressed to effect rather than cause, hence results are not permanent. She tops the high points of Freudian concepts of mind levels, of Adler's theory of drive for power—the urge to achieve, the importance of the emotional make-up in the motivations of human conduct and, in turn, Jung with his theory of "creative strivings," harking back to racial patterns wherein one's own unconscious is the inheritor of the racial unconscious. Out of these theories evolves the doctrine that a neurosis or unhappiness is the result of misdirected energy, thus attention was directed to cause of neurosis rather than effect. Continuing, "We cannot apply the abstract principles of academic psychology to a flesh-and-blood human being without a considerable remainder, and that remainder contains almost all that makes one a human being," quoting Dr. Adolph Meyer. The principles of psychoanalysis help us to understand the meaning of the heretofore meaningless conduct and chatter of the insane, those who have forsaken reality to live in illusion.

Psychoanalysis accents the abnormal. Therefore work, being natural and normal to man, activity and understanding are the backlogs of treatment. Occupational therapy uses the whole person and does not need the explaining that psychoanalysis needs, because health is accented rather than sickness. Thus it helps a patient to rebuild personality which has failed in life adaptation. An insane person may be intellectually unbalanced sometimes, but is emotionally unbalanced always—not that reason is dethroned, but emotion has run amuck.

Quoting another authority the question is asked: "What Is a Balanced Life?" There are four things without which a man or woman is incomplete: work, avocation, social activities and physical exercise.

No credit is given to Dr. Richard Cabot by the author nor is any reference made to his having expressed the same thought years ago in a book entitled "What Men Live By." To any such dictum it is difficult to see how one can omit the dominant trait of self-worth.

The author refers to the success and methods of treatment that have come into practical use in the field of psychiatry. She stresses the fact that the treatment of nervous and mental disorders belongs within the province of the medical doctor. She raises the question, "Can a race which is capable of committing the horrors of today survive?" If we perish, we shall be the latest—not the last. The book is very readable, informative, and can be read profitably by both doctor and layman.

C. R. Bird, M.D.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, April, 1943

Diseases	April 1943	Mar. 1943	Feb. 1943	April 1942	April 1941
Tuberculosis, primary	18	15	79	6	0
Tuberculosis, active	222	200	208	115	70
Tuberculosis, arrested	11	10	24	5	0
Chickenpox	507	442	422	460	487
Measles	2103	1356	1161	573	4715
Scarlet Fever	345	387	451	450	570
Smallpox	5	16	29	3	2
Whooping Cough	330	182	168	181	128
Diphtheria	16	20	18	22	48
Influenza	141	53	99	97	49
Pneumonia	48	78	253	80	78
Mumps	411	326	557	161	238
Poliomyelitis	2	0	1	2	0
Cerebrospinal Meningitis	39	26	21	3	1
Undulant Fever	8	1	0	4	0
Malaria	2	1	0	0	0
Rubella	1347	898	1502	80	313
Vincent's Angina	175	12	31	1	0
Amoebic Dysentery	1	0	0	0	0
Pneumococcic Meningitis	1	0	0	1	0

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Sacroiliac Sprain
Scoliosis
Spondylarthritis
Spondylolisthesis
POSTOPERATIVE
Appendectomy
Cesarean Section
Cholecystectomy
Colostomy
Herniotomy
Hysterectomy
Nephrectomy
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Epigastric

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Contents

ORIGINAL ARTICLES

A Realistic Approach to Present Medical Problems. Brigadier General Fred W. Rankin, Washington, D. C. 331

Prevention and Treatment of Infections of the Hand. Vinton E. Siler, M.D., Cincinnati, Ohio 334

Treatment of Uncomplicated Diabetes with Mixtures of Insulin and Protamine Zinc Insulin. Franklin B. Peck, M.D., Indianapolis 340

Report of a Case of Palindromic Rheumatism. John L. Ferry, M.D., Whiting 348

EDITORIALS

A.M.A. Presidents Real Leaders 351

Doctors and Rationing 351

A.M.A. and Public Relations 352

Again the Country Doctor 353

Undulant Fever 354

Editorial Notes 355

SPECIAL ARTICLES

President's Page 358

A.M.A. Delegates Create Public Relations Council at Chicago Meeting, June 7-9. Homer G. Hamer, M.D., Indianapolis 359

Medical Services for Families of Service Men—Fee Schedule Prepared by the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health 361

Instructional Courses at Annual Session of the Indiana State Medical Association 363

Under the Capitol Dome 364

MISCELLANEOUS

Deaths 365

Military News 366

News Notes 370

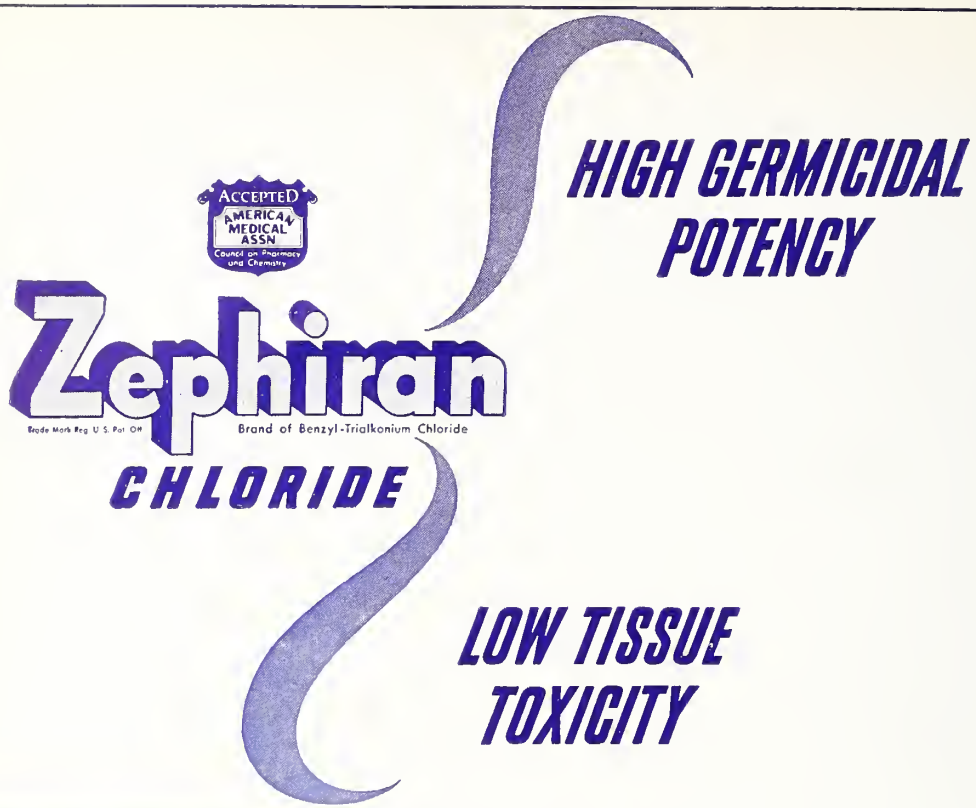
Indiana University News Notes 372

Societies and Institutions:

- Indiana State Medical Association: Executive Committee 372
- Local Societies—Meetings 376
- District Meetings 377
- Woman's Auxiliary 378

Books xxii

Indiana State Board of Health—Bureau of Communicable Diseases xxii



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*Hirsch, M. M., and Novak, M. V.: Evaluation of Germicides with Relation to Tissue Toxicity. Proc. Soc. Exper. Biol. and Med., June, 1942.

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A REALISTIC APPROACH TO PRESENT MEDICAL PROBLEMS*

BRIGADIER GENERAL FRED W. RANKIN,

Chief Consulting Surgeon, United States Army,
President, American Medical Association

WASHINGTON, D. C.

The realization that I am about to relinquish the office of president of this association prompts me to pass in review our record, crammed with exciting events, and to scan the horizon anxiously for gathering storms which may imperil our course and test further our courage and endurance. That we have kept a steady course set toward the maintenance of the health of the nation and its armed forces during these turbulent times of world-wide hostilities, despite hurried preparation, bespeaks our association's self-sacrificing devotion to duty and emphasizes its indomitable spirit and resolute determination—characteristics distinctly American. Never during its history, nor for that matter during the history of our country, has there been the urgent demand which current exigencies have imposed upon our special talents and skills.

The rapid, thorough, and efficient manner by which these demands were met has been due in great measure to the astute foresight of our leaders, who, long before that fateful day when our enemies treacherously launched us into this holocaust, began careful preparations for the inevitable requirements which develop as a consequence of the military, industrial, and continuing civilian needs for adequate medical care. That these plans were well contrived and intelligently executed is forcefully demonstrated by the continued improvement in the health of our nation and our armed forces, despite the fact that about 40 percent of the usable medical personnel of the country has entered the services and the added burden of a parallel gigantic industrial expansion that has been placed upon the thinned ranks of the remaining civilian physicians.

My deep gratification in reporting this thrilling and inspiring performance is heightened only by my humble respect and intense appreciation for the high honor you so generously bestowed upon me as your president in this trying period, and for the distinct privilege of participating in these activities and in associating with the scrupulously sincere, assiduously attentive, and particularly competent members of the Board of Trustees and the executive staff of this association.

During the past year our country has been feverishly engaged in mobilizing and preparing its industries and manpower for war on a scale unprecedented in its history. All efforts have been directed toward a single fundamental purpose—the creation and preparation, as rapidly as possible, of a formidable military machine with irresistible striking power. This has required a national metamorphosis in which the medical profession has participated eagerly and wholeheartedly. Indeed, no other group has shouldered its responsibilities in this emergency with greater self-abnegation, more cheerful enthusiasm, and more efficient adaptability. Upon us developed the obligation of establishing a bulwark against epidemic disease and military casualties, both on the home front and on the far-flung battlefields of this globe-encompassing war. Essentially our function is concerned with the conservation and maintenance of health. That we have performed this function successfully is demonstrated by the fact that we have given our civilian workers production superiority in the rapidly expanding war-geared industries, and our armed forces combatant superiority in the jungles of Guadalcanal, on the gale-swept North Atlantic, and on the blistering deserts of North Africa.

LOGISTICS NOW PARAMOUNT PROBLEM

The most difficult and exigent phase of the war, i. e., rapid mobilization, has been expeditiously concluded. Now our paramount problems are con-

* Delivered before the House of Delegates, American Medical Association, Chicago, Illinois, June 7, 1943.

cerned with logistics; production has been achieved. Consideration is already being given post-war planning even though it may seem little warranted at this time. It should be realized, however, that only by such long-range charting can the confusion and disorder which characterize immediate post-war reconstruction periods be averted. The manifold problems arising from these future developments will deeply concern and intimately affect us all. A rational solution of these problems depends upon their thorough comprehension; but, first, they must be sighted as distantly and as clearly as possible. Accordingly, we set a watchful gaze upon the horizon.

It must now be apparent, even to those who have been most purblindly recalcitrant, that mighty influences are at work to effect epochal changes in the complexion of medical practice. While it would appear that these influences have suddenly loomed on the medical scene, it should be realized that they have long been forming, and that the present military conflict has merely hurried their development and magnified their significance. That they can no longer be ignored seems difficult to controvert. We must face realistically these tremendously forceful socio-economic trends which are intimately involved and deeply concerned with the nation's medical problems. The directional signposts of post-war planning may now be clearly read by proposals already made for broadening the social security program and extending the nation's economic resources to assure "adequate medical and health care for all, regardless of place of residence or income status." The complex connotations and inevitable implications of these plans and proposals make it quite apparent that the old system of medical practice will be considerably modified. If the limitless and baneful potentialities that can be projected into the science and art of the future of medicine are to be averted, it becomes imperative in this transition period that the wise and tempered counsel of the medical profession exert its proper influence. *That our medical descendants should look back and point a culpable finger to our page of history which would read that our actions were "too little and too late," is a plaguing thought. Our responsibility in approaching and participating in these evolutionary processes is greater than many of us have been willing to admit—indeed, it is intimately involved with the medical security of our country as well as our profession.* Have we so long basked in the luxuriating rays of medicine as the apotheosis of professions that we have become languid and inelastic in our attitude and hesitant and fearful in our response to existing socio-economic developments? I sincerely hope not.

Our motives are inherently sincere. They are based upon desiderata to which we have held tenaciously and which we must guard assiduously, lest future progress toward higher standards in medicine and professional tenets be jeopardized. Our ultimate objective consists essentially in the provision of the best possible preventive measures against disease, the institution of the best possible forms of therapy, and the ceaseless pursuit of advances and improvements in technical procedures and other prophylactic and therapeutic measures for clinical application. It requires no percipient degree of rationalization to realize that the complete fulfillment of these objectives for the entire nation would necessitate the development of a comprehensive medical service.

It is becoming increasingly apparent that the trends now gathering momentum are directed toward some form of national health service as an integral function of the state. Proposals of this nature—by governmental post-war planning agencies, both here and abroad, have been the subject of deep consideration, wide editorial comment, and cogent discussion. This mood has been further reflected in recent comments by various medical and non-medical writers who have penetrated with incisive clarity to the very heart of this controversial subject. It has been stated by some that the financing of this type of medical service is a socio-economic consideration, and not a medical problem. While it may be argued that financial provision for the institution of such a service is a function of the commonwealth, I am impelled to emphasize the fact that the structural character of the organization of any such type of health service is tremendously important to doctors and is vitally concerned with the execution of their professional function. This entire subject must be brought into sharp focus by the light of trenchant and dispassionate thought in order to observe both the desirable as well as the possible apprehensive aspects of the contemplated proposals.

MUST FACE TASKS WITH COURAGE

In the national fulfillment of our altruistic objectives, it must be recognized that two essential provisions are required, namely, professional and financial facilities. It must also be recognized that the successful attainment of these objectives cannot be accomplished if in the implementation of any plan or proposal the professional facilities are subjugated to the authoritative management, traditionally dictated by political whimsy, of some legislative council controlling the financial provisions. These two provisions are interdependent and cannot be distinctly separated in approaching our objectives. The successful application of the former requires certain facilities supplied by the latter, which, in turn, can be guided intelligently only by professional knowledge. These vastly significant facts must be sincerely appreciated by all parties, both medical and non-medical, concerned with this problem in their approach to its solution.

It is necessary to realize that the establishment of one of these contemplated medical services does not sound the death knell of private practice of medicine. These two forms of medical service are not incompatible, and their consideration must not be regarded in the light of apostasy, but rather in the light of realism. They become incompatible

only if in attempting their admixture certain undesirable ingredients are added. The problem is too difficult, the time is too short, and the stakes are too high for all concerned, to allow these factors to influence our actions. All efforts must be harmoniously combined and closely coordinated toward the elaboration of an intelligent program which will permit a democratic as well as a comprehensive medical service with equally high professional and ethical standards.

It should be clearly understood that this embraces the concept of existing freedom of thought and action in the exercise of our profession and our scientific pursuits. None is more keenly aware, none more fully cognizant than I, of the resultant stultification of the science and art of medicine which would be occasioned by any loss or curtailment of this freedom. Here is a principle which is more than an heritage—indeed, it forms the supporting foundation of the art of medicine and the guiding light of the science of medicine. It was freedom to think and freedom to express thought in speech and in writing unhampered by the fearful consequences of traditional or legislative authority that permitted medicine to progress to its present exalted position in the field of science, and it is absolutely essential in its continued advancement. It is a principle, therefore, which we can never relinquish.

Since the challenges confronting medicine will undoubtedly be multiplied as we approach the termination of this conflict and the commencement of the difficult reconstruction period, it becomes our responsibility and duty, with ever mounting importance and increasing urgency, to prepare to meet them now. In addition to the problems concerned with medical practice, we must be ready to meet the related problems of post-war rehabilitation of physicians—physicians whose entry into service involved personal sacrifices and the revamping of plans and ambitions, and whose return to civilian pursuits will necessitate numerous and variable readjustments, and even resumption of specialized training.

These are prodigious tasks with manifold ramifications and far-reaching significance, but tasks which we must face with unflinching resolve. Their achievement will demand not only sincerity of interest, integration of effort, and clarity of thought, but also active and close collaboration with appropriate governmental agencies. We can not evade or disregard the growing interest of the public, the government, and various lay groups in the administration of medical care; nor can we afford to engage in a struggle for domination. The solution to these problems and the attainment of our objectives do not lie in that direction. They can be approached more expeditiously by a willingness to share their responsibilities and a readiness to co-operate in their consideration. The importance and urgency of these various problems commend the immediate establishment by this association of suitable agencies for their investigation. In the institution of these agencies the purpose and vast significance of their function, the sharp delineation of their problems, and the need for their collaboration with others should be emphasized. They must also be impressed with the importance of these studies and their resultant proposals upon which so much depends. *Indeed, the plan of action which we institute, the attitude which we manifest, and the intelligence, zeal, and judgment which we now employ in our efforts to solve these problems will greatly influence and actually determine the future standards of the medical service of our country and the cultural standards of our profession.*

ABSTRACTS

ADVICE TO ANGLERS ON THE REMOVAL OF FISH HOOKS

"By all odds the 'push through' method is the best one for the removal of a fish hook in which the barb has gone in beneath the skin," it is advised in *The Journal of the American Medical Association* for May 22. "Circumstances can conceivably arise in which it would require pushing the fish hook through a considerable distance by a curved route before the barb emerges from the skin. When this occurs, it would seem better to make a small incision down to the barb before pulling it out backward."

The foregoing is in answer to a question from a physician regarding a statement published in a fishing magazine wherein it was advised that one "take a pair of small nosed pliers, take a good hold on the hook yourself or have some one officiate for you, and yank. . . ."

TETANUS IMMUNIZATION OF MILITARY PERSONNEL

All military personnel on induction are being immunized against tetanus either, as in the Army, by three injections of fluid toxoid, or as in the Navy and Marine Corps, by two injections of alum precipitated toxoid (*New Eng. J. Med.*, **227**:162, 1942). In addition, a small or stimulating dose is injected prior to departure for a theater of operations and an emergency dose is given to those wounded or burned in battle or incurring other wounds likely to be contaminated with *Clostridium tetani*. According to recent report (*Am. J. Pub. Health*, **33**:53, 1943) since June, 1941, when the present tetanus immunization program was adopted, there have been but four cases reported from the entire Army, and none of these were in immunized individuals. Although perhaps too early in the present war to draw any conclusions, it is of particular interest that no cases of tetanus have been reported from battle casualties.

For civilian use, especially in children, it is of decided advantage to accomplish simultaneous immunization against tetanus and diphtheria. Combined Diphtheria Toxoid-Tetanus Toxoid, Alum Precipitated is designed for prophylaxis only, affords effective immunity against both diseases, and avoids risk of serum sensitization which may follow use of an antitoxin.

PREVENTION AND TREATMENT OF INFECTIONS OF THE HAND*

VINTON E. SILER, M.D.†
CINCINNATI, OHIO

Industrial statistics, both in the United States and Canada, have shown that infections of the hand cause a greater loss of working days than any other single condition. During this great war program, when industrial activity has increased, when it is essential that industrial men and women work seven days a week twenty-four hours a day, when it is obvious that there is a depleting supply in skilled laborers, there is a need to express some concern about the medical aspects of this situation.

It is impossible to discuss the management of infections of the hand without referring to Kanavel's[1] excellent study from which evolved the basic, fundamental principles of the diagnosis and treatment of lesions of the hand. Much credit in this field must be given to Koch[2] and Mason,[3] not only for the propagation of Kanavel's ideas, but also for their clinical and experimental contributions which have been extremely helpful in the attack upon this problem. The author is deeply indebted to their contributions on this subject, particularly for their kindness and patience in permitting direct observations on the management of their cases at the Passavant Memorial and Cook County Hospitals.

The functional value of the human hand must constantly be re-emphasized. We, as physicians with full knowledge of the importance of the hand, give little concern about it until we, ourselves, suffer injury or infection to some part of it. Practically everyone has as his means of livelihood the ability to work with his hands. Mason[4] has aptly expressed this idea in his statement, "Nature has developed in the hand a finely co-ordinated motor and sensory organ, which has made possible our present civilization. The hand is composed of compact and efficiently balanced muscles, tendons and joints, motor and sensory nerves and specialized nerve endings. Bulk and protection are sacrificed to efficiency; there is nothing to spare, each part is reduced to a minimum."

The hand, more than any other part of the human body, with perhaps the face as the one exception, comes most frequently in contact with the external world. The hand is constantly being subjected to some trauma, either by mechanical, chemical or thermal agents.

RELATIONSHIP OF MEDICINE TO INDUSTRY

We should digress momentarily and consider the relationship of medicine to industry. Perhaps today, as never before, have the interrelationships between industry and medicine been so close and important. Almost all of the large industrial concerns have their own medical department with either full-time or part-time physicians. Most of them have a well-defined nursing staff with treatment rooms, first aid stations, and adequate materials, supplies, and equipment to carry on their work. Even the smaller industrial concerns have a modification of this program. On analysis, then, we see that four relationships are immediately involved; namely, one, the workman or employee; two, the employer; three, the physician, and four, the Industrial Commission. At first glance the task of handling all of the details of this relationship may appear simple, yet on scrupulous examination one can easily see the multiplicity of factors involved regarding medical care. This intricate system explains many misunderstandings of all parties concerned, and only close co-operation between the employee and his medical health program will help correct this deficiency.

GENERAL PROPHYLACTIC MEASURES

There are a great many general measures which can be utilized in the prophylactic treatment in infections of the hand. Co-operation between all parties concerned is of primary importance. Some of these measures, which have constantly come to my mind, are related in the following paragraphs:

The Workman or the Employee

Since the majority of infections of the hand begin as small injuries, it is important that the workman be made to realize the seriousness of any injury regardless of its triviality. This means that in case of any injury the workman should report immediately to the medical center of his employer. I realize that this is supposedly done in practically all industrial concerns, yet, when one investigates the exact etiology of infections of the hand, one not infrequently finds that the employee reported his illness many hours and sometimes even days after the initial injury. This situation can only be overcome by constantly impressing upon all employees the necessity of reporting their injuries. This may be done either by posters which convey the importance of reporting injuries, or may be done through group health talks and conferences. Perhaps one of the greatest attributes of the Amer-

* Read before Indiana's Industrial Health Conference, at Indianapolis, on February 26, 1943.

† From the Department of Surgery, College of Medicine, University of Cincinnati and the Cincinnati General Hospital.

[1] Kanavel, Allen B.: Infections of the Hand, 7th edition, Lea and Febiger, Philadelphia, 1939.

[2] Koch, Sumner L.: Treatment of Compound Injuries of the Hand, *The Journal Lancet*, **55**:569, 1935.

[3] Mason, Michael L.: Pitfalls in the Management of Hand Infections, *Minnesota Medicine*, **20**:485, 1937.

[4] Mason, Michael L.: Symposium on Surgical Infections; Infections of the Hand, *The Surgical Clinics of North America*, **22**:455, 1942.

ican Red Cross first-aid courses is the fact that many people in industry have realized for the first time in their lives the importance of trauma and infection. This in itself has done a great deal to promote prompt medical attention.

The Employer

The workman is not always at fault. In many instances the employer may be criticized for laxity either in insufficient protective devices on his machinery or in inefficient medical services. Progressive concerns will see that there are safety devices and guards on all dangerous parts of machinery, and they will usually have first-aid stations supervised by either full- or part-time physicians with a nurse constantly in charge to care for the casualties.

The Physician

The physician often is responsible for infections seen about the hand. We have already stipulated that most infections of the hand are the result of small injuries which provide a portal of entry for the organisms. Too frequently the physician or surgeon fails to recognize the seriousness of the initial lesion. If the employee and employer have conscientiously carried out their responsibility in the prevention of infection, it seems hardly necessary to stress the duty of the doctor whose job it is to see that asepsis is maintained. The fate of an injured hand is often decided promptly and permanently when first-aid is rendered. What occurs in the first few hours following injury often determines the difference between a good and a bad functioning hand. Even when a serious lesion is well recognized, physicians are prone to postpone surgical consultations so that in spite of adequate treatment the end result is none too gratifying. For example, an industrial physician in one of our large industrial concerns called us concerning a patient who four days previously had sustained a small laceration of his left ring finger. Over the telephone the physician said that the patient had an acute suppurative tenosynovitis, that surgical intervention was indicated, but that treatment could be instituted the following morning. It so happened that it was inconvenient for the patient to come to the hospital at ten o'clock at night, and the physician did not insist. This patient was seen twelve hours later. This event happened in spite of the fact that the surgeon insisted that the patient come at night. In this instance the patient lost his finger and, more important, was completely disabled from his work for a period of five months with complications of this infection. Although one cannot definitely say that the delay of twelve or fourteen hours from surgical intervention may have been responsible for the course of his progress, we may assume that it was definitely detrimental and may have been a large factor in his clinical course. Had treatment been properly instituted a few hours earlier, the tendons may have been spared and perhaps the finger saved. This is only one of the many examples which occur too frequently in the practice of surgery.

There are many examples of neglect, on the part of the physician, of seemingly small injuries. It is very easy for the busy industrial physician to hastily glance at a wound, to make no attempt at a complete examination to see if a nerve or tendon has been injured in the valuable hand, and to make a few brief comments to the nurse who then applies a dressing without any attempt at good aseptic therapy. This type of practice is responsible, to a large degree, for the serious complicated infections of the hand which often cause partial, if not complete, disability and in some instances death.

The Industrial Commission

We have considered some of the generalities regarding prophylaxis involving the workman, the employer, and the physician. A fourth relationship is that of the Industrial Commission. No one of us would for a moment question the advisability of such medical insurance. Personally, I believe that the Industrial Commission of every state is to be commended highly for the performance of its work. This commission is largely responsible for the relationship of the employer to the workman regarding his health program. On the other hand, there are many instances of misunderstanding between the physician and the Industrial Commission. It would seem that the majority of intelligent heads of concerns believe that good surgery is cheapest in the long run. It is easy to understand, therefore, that a good surgeon will not sacrifice his practice to care for industrial cases at the present fee rate, which is fairly uniform throughout our country. For example, in dealing with infections of the hand which require considerable time, effort, and care on the part of a surgeon, no one would expect this to be done without reasonable compensation. In most instances the remuneration is so distinctly out of proportion to the work involved that many of the more skilled surgeons in the community refuse to care for these patients. The ultimate end is obvious. It is difficult to comprehend why a surgeon should receive fifty dollars for treatment of a simple Colles' fracture of the radius, which involves in most instances not more than three or four office calls, and yet receive not a great deal more for treatment of a seriously infected hand, which may require multiple operative procedures, daily hospital visits which are time-consuming, followed by many office calls to attempt rehabilitation of a poorly functioning hand. Ultimately, there can be only one answer to this problem. If better medical attention is to be obtained, industry and the Industrial Commission must not only seek it but must pay for it as well.

SPECIFIC PROPHYLACTIC MEASURES

Except in rare instances infections of the hand follow injuries, and therefore proper treatment of the open wound, whether it be large or small, becomes the real prophylactic treatment. The amount

of material equipment needed for proper handling of the wounds is small, but the knowledge and experience required are extensive. We are prone to believe, as do Koch,[5] Mason,[6] and many others, that good first-aid care is more than the mere application of a dressing.

In the first place, anybody dealing with an open wound should cover his nose and throat with a mask and also cleanse his hands thoroughly. This important step, we believe, prevents contamination of the wound with pathogenic organisms and may, therefore, be the important phase of prophylaxis as pointed out by the work of Hare.[7] It is important to make a careful observation of the wound, considering its nature, the amount of trauma involved, and the possibility of extensive deep injury which may involve tendons, nerves, and vessels. This means that a careful motor and sensory examination of the hand must be done. I am sure that all of you here have seen very small wounds on the surface with extensive damage in the underlying tissues. These observations determine definitely what one may expect to encounter in the definitive treatment of the injury. This does not mean, however, that wounds are to be probed and vessels haphazardly clamped and ligated. It is much better to control hemorrhage by pressure dressings initially than to clamp vital structures in a wound which is oozing and refilling with blood.

Thus we see that specific steps to be followed in the prophylactic treatment in infections of the hand consist of strict asepsis, avoidance of contamination, and avoidance of tissue damage. These principles have been repeatedly emphasized by Koch and Mason.

GENERAL CONSIDERATIONS IN TREATMENT

When the surgeon is dealing with an infection of the hand, certain definite principles of treatment should be followed. These principles, so aptly presented by Koch,[8] are: (1) promote localization of the infection, (2) provide drainage when localization has occurred, (3) sterilize the infected area, (4) cover the raw surface, and (5) restore function.

Localization of Infection

It is important that localized infections be immediately distinguished from the spreading type of infection. In focal or spreading cellulitis, as in lymphangitis, the treatment is conservative until surgical intervention is indicated. In these cases localization of infection is brought about largely by an increase in blood supply to the involved region. This is the natural response of the body to bacterial invasion. The surgeon can help this defensive process by placing the hand at rest on a sterile aluminum splint as advocated by Koch and Mason. Warm, moist, sterile dressings of either physiological saline or boric acid solutions are helpful. We have found that the Vapo-Therm is a very helpful device in obtaining warm, moist heat. This instrument is an electric steam oven easily regulated by a thermostat. Alternating moist and dry heat will usually prevent "water logging" of the tissues. The exchange of fluid in the involved hand may be greatly improved by proper elevation.

The use of sulfonamide drugs systematically has certainly been helpful in inhibiting the spread of infection in cases of diffuse cellulitis. It is difficult to say with any degree of accuracy that these drugs have hastened focal suppuration. The usefulness of small whole blood transfusions, given frequently, should not be minimized. These two types of special therapy have been exceedingly helpful in certain fulminating diffuse infections, such as result from a human bite.

Other general measures, such as bed rest, sedation, adequate oral or parenteral fluid intake, are employed to help localize the inflammatory process.

Adequate Drainage When Localization Has Occurred

As soon as the process is well localized and the cellulitis or lymphangitis has subsided, drainage should be established. In many cases a surgeon neglects to maintain adequate or complete drainage of the involved part, which explains not only the delay in wound healing but also unwarranted damage to vital structures.

The exact surgical technic which we have used is that advocated by Koch and Mason. The patient is practically always operated upon under general anesthesia unless there are contraindications to it. When the patient is asleep the skin of the hand and forearm is gently cleansed with soap and water for ten minutes. In order to avoid serious damage to vital structures the operation is carried out in a bloodless field. This is accomplished by applying a blood pressure cuff around the arm and inflating it to a level of 260 mm. of mercury after all of the venous blood has been removed by elevation of the hand for five minutes. Under this condition the surgeon can, with extreme caution, make incisions to accomplish his purpose. The use of a large knife blade in operating upon the hand is inadvisable. A small knife blade is sufficiently large to carry out such a delicate procedure. When adequate drainage is accomplished the infected area is then thoroughly irrigated with physiological saline solution. The wounds are always drained with vaselinized gauze, since rubber and other type of traumatizing drains cause further necrosis. In order to keep the edges of the skin apart, we have utilized narrow iodoform gauze, packing the angles of the wounds. The hand is then placed on a dry, sterile aluminum splint in a comfortable functional position, and a

[5] Koch, Sumner L.: Purposeful Splinting Following Injuries of the Hand, *Surgery, Gynecology and Obstetrics*, **68**:961, 1939.

[6] Mason, Michael L.: Surgical Principles Involved in Treatment of Open Injuries, *The Western Journal of Surgery, Gynecology, and Obstetrics*, **45**:239, 1937.

[7] Hare, R., and Willits, R. E.: Source and Prevention of Septic Infection of Wounds, *Canadian Medical Association Journal*, **44**:230, 1941.

[8] Koch, Sumner L.: Some Surgical Principles in the Treatment of Injuries and Infections of the Hand, *The Journal of the Kansas Medical Society*, **40**:89, 1939.

sterile dressing is applied. Usually this dressing remains untouched for forty-eight hours, at which time the initial dressing is done. All drains are removed, and except in very rare instances drains are not reinserted. During this time all general measures to combat infection are employed.

Sterilization of the Infected Area

Sterilization of the infected area is accomplished to a large extent by the tissues themselves. The type of bacterial flora of the infected wound probably governs the rapidity with which sterilization can be secured. If anaerobic and aerobic organisms are present, as in the human-bite infection, the use of zinc peroxide solution as advocated by Meleney[9] is a most useful agent. When infection is due to the staphylococcus or streptococcus, control of the organisms usually can be achieved by careful toilet of the wound and daily irrigation with physiological saline solution or Dakin's solution.

The local use of sulfone compounds for sterilization of these wounds needs cautionary comment. The exact response of all tissue to these compounds has not as yet been determined. When vital functional structures, such as tendons, have been exposed, the topical application and indiscriminate use of sulfone crystals may add more damage to an already impaired hand. It would seem, therefore, that at the present time the indications lean more heavily toward their systemic administration and less toward the topical application. Greater dividends might well be secured by their restricted use. One clinical observation has impressed the author's mind regarding this principle—that when an infection of the hand is diagnosed early, and when properly placed incisions adequately drain the infected area, healing has progressed rapidly and the final functional result has been gratifying.

Attention should also be directed toward the possibility of cross or secondary contamination of open wounds of the hand. Meticulous, careful aseptic surgical handling of these wounds is essential. Too often the resident, the intern, or the nurse is alone given the responsibility of dressing these wounds. In many instances very poor technic is used; dressings are removed and replaced without proper utilization of surgical instruments.

Covering of Raw Surfaces

Granulating wounds of the hand are no different than similar wounds elsewhere in the body. Any granulating surface larger than 2 cm. in diameter should be grafted. Early replacement of skin is beneficial to the patient and gratifying to the surgeon. Many contracting bands of the fingers and palm of the hand could be prevented with proper early grafting.

Restoration of Function

Restoration of function in the management of infections of the hand has been sorely neglected. It is not sufficient to operate upon the infected hand and get a well-healed wound. In so far as possible every attempt should be directed toward obtaining a normal functioning hand. Many cases are early recognized as being permanently disabled and present a challenge to the surgeon who possesses patience and skill to correct the abnormality. On the other hand, many cases are not restored to full function simply because of improper surgical care, inadequate instruction to the patient, lack of active and passive functional exercises, and finally, failure of the surgeon to follow closely the postoperative course of his patient.

To obtain a good functional result, intelligent planning must be started early. Splinting of an infected hand is all-important, but as has been pointed out by Koch and Mason,[10] it must be done early and with a purpose. There is no substitute for early active gentle motion. When the infected hand is dressed each day, limited active motion should be instituted. As the infection subsides, more activity is encouraged. When wounds are well beyond the danger zone, or almost completely healed, soaking the hand and forearm in a saline or soapy arm bath yields good results. At this stage of progress the patient needs careful instruction regarding passive joint motion, which he alone can do. Squeezing a soft rubber ball or sponge while the hand is in a bath is an excellent method of accomplishing active motion. Kind and encouraging words to the discouraged patient will often help to rehabilitate a temporarily crippled hand.

Permanent disability can be properly evaluated only by careful follow-up examinations over a period of months. There are cases with a poor functional result after infection which are greatly improved by secondary plastic procedures. Careful month-to-month examination will not only determine what can and what should be done, but the optimum time for secondary surgical intervention will be determined. To this end the surgeon must seek restoration of function.

SPECIFIC TYPES OF INFECTIONS OF THE HAND

It is not possible in this presentation to discuss every specific infection of the hand. For this reason clinical examples will be presented. At this time it might be well to state that the practice of classifying lesions of the hand into minor and major infections is in disrepute. There is a good reason for this, for, as all of you know, a minor infection is practically the basic foundation for the major infection, hence, the so-called "minor infection" may well be the one of major importance.

Focal Superficial Infections of the Hand

The importance of intra- and sub-cutaneous infections of the fingers lies in their frequency and in the possibility of complicating tenosynovitis.

[9] Meleney, Frank L.: Zinc Peroxide in Surgical Infections, *Surgical Clinics of North America*, **16**:691, 1936.

[10] Koch, Sumner L., and Mason, Michael L.: Purposeful Splinting following Infections of the Hand, *Surgery, Obstetrics and Gynecology*, **68**:1, 1939.

Intracutaneous infection is a lesion which we have noticed frequently in our clinic. A history of infection following a blister or a small abrasion with a rather rapid spread of infection in the skin itself is usually obtained. Occasionally the entire circumference of the finger is involved. The surface epithelium appears as a blister, and upon opening this the content is seen to be a thin, watery discharge in which are scattered flakes of necrotic tissue. The basic epithelium appears red and edematous. This lesion is practically always caused by the hemolytic Staphylococcus aureus organism. The treatment of this lesion confines itself essentially to the removal of the entire blister and the immediate application of Dakin's solution. We have tried moist and dry dressings with the invariable result that on subsequent dressings the infectious process has spread beyond the limits previously seen. If this infection is not soon brought under control, it may give rise to a subcutaneous infection and even tenosynovitis or a fascial space abscess.

Subcutaneous infections usually start from small wounds or pin pricks and may be caused by a multiplicity of organisms. This type of infection usually becomes a localized subcutaneous abscess and may be associated with a certain amount of cellulitis. When this condition occurs on any aspect of the finger it may require careful observation and judgment to differentiate it from suppurative tenosynovitis, the most feared of all infections of the hand. Occasionally it completely encircles the digit, in which case it is almost impossible to differentiate it from tenosynovitis. The treatment is based upon early accurate diagnosis and, when localized, early adequate drainage, being careful to make proper incisions which will give a good functional result. Occasionally this type of infection is seen about the distal phalanx and is confused with a paronychia. We have seen many instances where a paronychia was diagnosed for a subepithelial abscess, and the nail was either completely or partially removed unnecessarily.

The Felon or Whitlow

This lesion is an infection in the distal phalanx in which case the anatomical peculiarities explain the symptoms and course of the process. The connective tissue septa connect the volar surface of the skin of the tip of the finger to the bone and thus prevent expansion of the tissues. In this instance the distal phalanx becomes diffusely tense, and throbbing associated with pain starts early in the course of the disease. This same tension leads to impingement of the blood supply, and unless treatment is instituted early necrosis of the distal end of the phalanx is to be expected. This means that osteomyelitis of the bone is inevitable. As soon as the diagnosis of a felon is made, incision and drainage should be instituted and is best done under general anesthesia. A lateral incision extending from the junction of the proximal and middle thirds of the distal phalanx to the tip of the finger and sweeping entirely across the pulp space to the skin on the opposite side, getting all of the septa midway between the bone and the volar skin, is the procedure of choice. This means that all of the connective tissue spaces are drained. Any procedure less than this in the treatment of a felon will yield poor results. We are prone to discourage the through-and-through incisions or the fish-mouth incisions over the tip of the finger, since the former leads to unnecessary necrosis of tissue and the latter yields a painful scar in most instances. By packing this wound open with vaselinized gauze and promoting drainage along with the principle of making the wound heal from the bottom, good results are seen in practically all cases. All of the general principles of treatment which have been advocated before are applied to this lesion.

Acute Spreading Infections

Of all the infections of the hand, acute spreading infections, such as cellulitis and lymphangitis, are the most serious and in many instances the most difficult with which the surgeon has to deal. These infections are often the result of small wounds so trivial that one would never suspect such an infection could transpire. Unfortunately, they are the infections seen too frequently among the medical profession, and there are many examples of doctors and nurses who have lost their lives through carelessness and neglect in dealing with serious virulent organisms. The author recalls a nurse in one of the large hospitals of his city who received an accidental prick from a pin when caring for a serious septic case. Within forty-eight hours a diffuse streptococcal cellulitis ensued, and five days later she died. In another instance a mother struck her child and received a small wound of the palm of the hand from a needle which he held in his hand. A virulent streptococcal cellulitis followed, and this apparently was opened before localization of infection took place. This patient, in spite of all available therapeutic measures, developed every possible complication of the hand and forearm, and I might add that, although her life was spared, the final result of her right hand and forearm was anything but gratifying.

These infections usually begin with malaise, elevation of temperature, and even prostration. The hand usually aches and the patient suffers extreme pain of the forearm and arm. There is usually definite evidence of a focal cellulitis with signs of lymphangitis. The regional lymph nodes in many instances are enlarged and tender. These are signs of diffuse infection and may be associated either with or without septicemia. These are the cases in which it is just as important to know what not to do as it is to know what to do. There is no question but that conservative measures should always be instituted and practiced. These are the cases in which all of the general therapeutic measures

should be utilized to combat infection and to halt its spread. All of the principles outlined under localization of infection should be instituted. These are bed rest, adequate oral or parenteral fluid intake, rest of the patient as well as of the involved part, application of warm, moist, saline or boric acid dressings, utilization of small whole-blood transfusions, and unless contraindicated, the systemic administration of sulfone drugs. Usually under this form of therapy the outcome may be one of three varieties: either the infection subsides entirely without necessitating surgical intervention; the process may localize and require drainage of an abscess at some point; or the infection may prove to be fatal. Fortunately, the majority of the cases today fall in the first or second category.

Acute Suppurative Tenosynovitis and Fascial Space Abscesses

Acute suppurative tenosynovitis and fascial space abscesses are the most feared infections of the hand. The reason is obvious since destruction of function occurs rapidly with these lesions. Fortunately, this type of pathology in the hand occurs less frequently than other types of infections. Time does not permit a discussion of the anatomy of the tendon sheaths and the fascial spaces of the hand.

Usually acute suppurative tenosynovitis is the result of direct injury to the tendon sheath, such as a cut or the injection of a piece of steel or wood followed by infection, or it may be the complicating result of a subepithelial abscess. The four cardinal signs of this infection are: (1) diffuse swelling of the finger; (2) tenderness over the anatomical distribution of the tendon sheath; (3) the finger is held in slight flexion; and (4) there is exquisite tenderness on attempting to move the finger either actively or passively. With these four cardinal signs the diagnosis should be made, and as Kanavel pointed out many years ago, this lesion is a surgical emergency. Here one is dealing with pus in an enclosed space, and unless early surgical intervention adequately drains this infection the pressure will cause spread of the infection. This may take place in the course of only a few hours so that the tendon sheath may rupture into the mid-palmar or thenar spaces or may spread in the radial and ulnar bursa if the thumb and little finger, respectively, are involved.

In this instance operation should always be done under general anesthesia, and only adequate knowledge of the involved anatomy will suffice. The finger should be opened from a lateral aspect in a bloodless field, using care never to cut the digital vessels and nerves nor the transverse pulleys of the finger. Using this technic the tendon sheath is opened not only in the finger, but also through a small transverse incision in the palm of the hand. If early drainage has been adequate and tendon necrosis has not already started, many cases will respond well to therapy.

When the fascial spaces are involved the diagnosis is not too difficult. There is usually flattening or elevation of the respective areas. In those instances where there is a question of a fascial space abscess, we have been prone to explore the spaces rather than delay drainage and allow further necrosis to occur.

In many instances of a fulminating type of infection, ulnar and radial bursitis or even a retroflexor space abscess may result. When these spaces become infected, adequate incision and drainage is again the only treatment of choice.

SUMMARY

Industrial statistics show that infections of the hand form the major injuries which lead to partial and permanent disabilities. An attempt has been made to review many of the factors in industry which, if corrected, would to a large extent aid in the prophylactic treatment of these infections. It has been shown that asepsis, avoidance of contamination, and avoidance of tissue damage are at least three factors which, if practiced, would reduce the occurrence of infection. Re-emphasis has been placed upon the essential principles in the management of infections of the hand. Four types of infections of the hand have been discussed in order to outline specifically methods of approach. Since infections of the hand are costly in time and money to all concerned, it would seem worth while to utilize all principles to avoid these infections. Obviously, the best treatment is prevention, and prevention of infection cannot be accomplished by one man alone. Prophylaxis must be the result of co-operation and the sharing of responsibility by the employer, by the employee, and by the surgeon.

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TREATMENT OF UNCOMPLICATED DIABETES WITH MIXTURES OF INSULIN AND PROTAMINE ZINC INSULIN *

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Within the last year no less than four prominent clinicians who have spent a large part of their medical time in treating diabetes have commented to me about the attitude of many physicians who seemingly regard diabetes as a disease that is surrounded by a halo of mystery. This is indeed unfortunate, for there is no other disease whose treatment is on such a firm scientific foundation and, in addition, which can be treated in such a simple manner, yet responds so quantitatively. For this reason, if no other, it is one of the most gratifying conditions to treat, from the standpoint of the practitioner as well as the patient, and the keystone of its control rests in the family doctor. The disease, diabetes, is characterized as one of complications; yet its treatment is not complicated but, on the contrary, may be conducted according to a few elementary principles. For example, Dr. R. C. Derivaux of Nashville, Tennessee, recently sent a picture of one of his twenty-year diabetics, an illiterate colored man by the name of Henry. Henry said, "Shucks, diabetes don't bother me none, it just ain't nuthin' to take care of." He noted a long time ago that on rainy days and holidays, when he just "piddled around the barn a little," he needed more insulin in order to remain sugar free. Henry's barnyard philosophy epitomizes the management of diabetes—the diet is quantitative and the deficiency in the patient's own body is replaced as nearly quantitatively as possible by injections of the active antidiabetic principle.

First Principles

An important problem concerns criteria for the control of diabetes. Is it necessary, or even desirable, to avoid hyperglycemia and glycosuria? Arguments have been advanced pro and con for several years. Tolstoi,[1] et al, have reported observations on patients who have been allowed to spill large quantities of sugar without obvious damage. Others, Joslin[2] for example, cite the evidence accumulated over many years that laxity in diabetic therapy exposes the patient to the danger of complications. Since we have the means at hand to control diabetes so easily, it seems only logical to ask the question, (a) Are we or are we not going to treat this disease and restore the diabetic's body chemistry to normal? or (b) Shall we treat it only half-way or even only one-fourth effectually? Should we try to improve on the homeostatic levels which nature endeavors to regulate so delicately within certain limits? The evidence now available seems to favor preponderantly the maintenance of the diabetic's body chemistry within normal (or natural) limits.

There are a few principles which in the course of twenty years I have come to regard as prime essentials in the treatment of diabetes. One of these principles goes back to the time of Naunyn, although it was first impressed on me through constant reiteration by Wendt of Detroit with whom I was associated for several years. It is that the diabetic who wakes up in the morning sugar free is a mild diabetic all day long, and the one who has a high blood sugar and sugar in the urine on arising is a severe case all day long. Protamine zinc insulin has solved the problem of nocturnal hyperglycemia for us, and has made this ideal in satisfactory treatment easy to accomplish.

Recent experimental evidence places the treatment of diabetes on a much firmer foundation than ever before. Mirsky,[3] Stadie,[4] and others have elucidated the independence of the carbohydrate and the fat-oxidizing systems, and have shown that any phenomenon which will accelerate glycogen depletion in the liver, such as insulin deprivation, hyperthyroidism, infection, hepatitis, gastro-intestinal disturbances, surgical procedures, anesthesia, vomiting—results in secondary acceleration of fat oxidation with consequent production of excessive amounts of acetone bodies. Soskin[5] believes that it has been an all-too-common fallacy to assume that the diabetic has been restored to a normal state because hyperglycemia and glycosuria have been controlled. However, this is not necessarily so unless the means by which control was accomplished has also led to increased glycogen stores in the body tissues. It is evident from his experiments that about 500 gm. of carbohydrate are needed to restore a comatose diabetic to normal by the end of the first twenty-four hours. About one-half of that amount will be required during subsequent days in order to maintain normal glycogen stores and carbohydrate metabolism. Anything which depresses normal glycogen storage is obviously wrong and consequently dangerous, re-

* Presented before the Lake County (Indiana) Medical Society at Hammond, March 11, 1943.

† From the Lilly Research Laboratories and Diabetic Clinic, Indianapolis City Hospital.

[1] Tolstoi, E.; Almy, T. P., and Toscani, V.: Treatment of Diabetes Mellitus with Protamine Zinc Insulin: Is Glycosuria Harmful?, *Ann. Int. Med.*, **16**:893, 1942.

[2] Joslin, E. P.: The Campaign Against Diabetes, *J.A.M.A.*, **120**:860, 1942.

[3] Mirsky, I. A.: Etiology of Diabetic Acidosis, *Proc. Am. Diab. Assoc.*, **1**:51, 1941.

[4] Stadie, W. C.: Fat Metabolism in Diabetes Mellitus, *J. Clin. Invest.*, **19**:843, 1940.

[5] Soskin, S.: Storage and Significance of Tissue Glycogen in Health and Disease, *Proc. Am. Diab. Assoc.*, **2**:119, 1942.

gardless of how well it may control the blood sugar level and the wastage of sugar in the urine. For example, the high-fat diet might be considered in the same category as synthaline, a toxic drug, which lowers the blood sugar level by damaging the liver. With these observations in mind it is possible to formulate a fundamental principle in diabetic therapy, namely, (a) *Give enough carbohydrate (and protein[6]) to protect the liver.*

Another series of investigations have revealed that the production of permanent diabetes in animals following administration of pituitary diabetogenic substances may be prevented or cured by dietary means or by the administration of insulin or protamine zinc insulin.[7] Hydropic degeneration of the beta cells of the islands of Langerhans was characterized many years ago by Allen[8] as the typical lesion of *active* diabetes, and he demonstrated that this lesion could be prevented by control of the disease. At this time the only means of control was starvation. More recently, by a carefully devised set of experiments, Lukens and Dohan[9] have shown that hyperglycemia per se is the factor underlying the development of these pathological changes in the islet tissue. Hence, another great principle of treatment may be added to the former, (b) *Give enough insulin to protect the islet cells of the pancreas from further injury.* Both these objectives are obtainable by quantitative dietary management and the administration of insulin and protamine zinc insulin.

The Diet

The first premise of this discussion was that the treatment of diabetes is a simple matter. It is at this point that a large number of physicians begin to "Fold their tents" and silently steal away. However, the diet should not be a stumbling block either to the doctor or the patient. The essentials (Table I) are very simple and under average circumstances may not even require calculation for each case individually since in most instances it is entirely practical to begin treatment of uncomplicated cases (adults) by means of one of three primary adjustable diets, one for the fat individual, one for the person of normal weight, and one for the lean (Menus A_2, D, and H). One can obtain the information needed regarding the response of any patient to a diet by weighing him once a week. If he loses weight, add more food. If he gains weight excessively, reduce the diet, especially the fat. The average diabetic is obese; reduce him and the chances are that he will lose much of his diabetes as well as his obesity. There is a vicious circle: obesity—hyperglycemia—diabetes. To give such patients insulin may serve to perpetuate their obesity, stimulate their appetites, make them more obese and more severe diabetics. Only weight reduction will break this cycle. The glucose tolerance test became normal in 77 per cent of obese, hyperglycemic patients in Newburgh's[10] group following adequate weight reduction.

Sometimes one can best convince a patient that he must follow the laws of conservation of energy

DIET A_2 C 100 P 60 F 60

Grams		Household Measurement	C	P	F
		BREAKFAST			
100	Fruit 10%	1½ orange, or ½ grapefruit, or 1 cup tomato juice	10	0	0
50	Cereal	Cooked ¼ cup rolled oats, or ¼ cup cornflakes	8	3	1
120	Milk	½ cup	6	4	3
2	Eggs	Or 1 egg + 2 strips crisp bacon	0	12	12
5	Butter	1 square 1" x 1" x ¼"	0	0	4
15	Bread—whole grain	½ slice ½" thick	8	1.5	0
			32	20.5	20
		DINNER			
60	Meat, fish, chicken, or cheese	3" x 4" x ½"	0	10	10
100	Vegetable 3%, cooked	½ cup	3	1	0
100	Vegetable 3%, raw	½ cup	3	1	0
240	Milk	1 glass	12	8	6
30	Bread—whole grain	1 slice ½" thick	16	3	0
5	Butter	1 square 1" x 1" x ¼"	0	0	4
			34	23	20
		SUPPER			
100	Tomato juice	2/5 cup	4	1	0
60	Meat	Or 2 T. cottage cheese + 1 T. thin cream	0	10	10
200	Vegetable 3%	½ cup or 100—6%	6	2	0
120	Milk	½ cup	6	4	3
15	Bread—whole grain	½ slice ½" thick	8	1.5	0
10	Butter	1 square 1" x 1" x ½"	0	0	8
100	Fruit 10%	As at breakfast	10	0	0
			34	18.5	21
			32	20.5	20
			34	23	20
			100	62.0	61
			4	4	9
			400	248	549
					400
					248
					Calories = 1197

DIET D C 150 P 60 F 80

Grams		Household Measurement	C	P	F
		BREAKFAST			
100	Applesauce	4 T.	13	0	1
100	Rolled oats	½ cup	16.5	5	2
40	Cream	3 T.	2	1	9
40	Bread—whole grain	1½ slices	19	4	0.4
1	Egg		0	6	6
10	Bacon	2 strips	0	3.8	5
3	Butter	½ square	0	0	2.6
			50.5	19.8	26.0
		DINNER			
60	Meat		0	12	10
45	Bread—whole grain	2 slices (thin)	24	4	0
200	Milk	1 cup	10	6	8
100	Spinach	½ cup	2	1	0
50	Tomatoes, cooked	½ cup	2	1	0
10	Butter	1½ square	0	0	8
120	Orange	Small	12	0	0
			50	24	26
		SUPPER			
33	Cheese (or 60 meat)		0	10	16
100	Beets	½ cup	6	1	0
45	Bread—whole grain	2 slices (thin)	24	4	0
200	Milk	1 cup	10	6	8
5	Butter	1 square	0	0	4
200	Grapefruit	1 small	10	0	0
			50	21	28
			50.5	19.8	26
			50	24	26
			150.5	64.8	80
			4	4	9
			602.0	259.2	720
					602
					259.2
					Calories = 1581

[6] Ravdin, I. S.; Thorogood, E.; Riegel, C.; Peters, R., and Rhoads, J. E.: The Prevention of Liver Damage, *J.A.M.A.*, **121**:322, 1943.

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[8] Allen, F. M.: Experimental Studies in Diabetes. I. Hydropic Degeneration of Islands of Langerhans After Partial Pancreatectomy, *J. Metab. Res.*, **1**:5, 1922.

[9] Lukens, F. D. W., and Dohan, F. C.: Pituitary Diabetes in the Cat; Recovery Following Insulin or Dietary Treatment, *Endocrinol.*, **30**:175, 1942.

[10] Newburgh, L. H.: Control of Hyperglycemia of Obese "Diabetes," *Ann. Int. Med.*, **17**:935, 1942.

DIET H C 200 P 80 F 100

Grams		Household Measurement	C	P	F
		BREAKFAST			
200	Tomato juice	1 cup	8	0	0
25	Cornflakes	2/3 cup	20	2	0
	Egg	1	0	6	6
10	Bacon	2 strips	0	4	5
200	Milk	1 cup	10	6	8
25	Cream 40%	2 T.	0	0	10
60	Bread—whole grain	2 slices	32	6	0
5	Butter		0	0	4
			70	24	33
		DINNER			
80	Lamb chops	2 small	0	16	20
100	Peas	½ cup	8	2	0
100	Carrots	½ cup	6	1	0
100	Tomato salad	1 medium	4	1	0
60	Bread—whole grain	2 slices	32	6	0
25	Cream 20%	2 T.	1	0	5
10	Butter	½ square	0	0	8
150	Orange	1 medium	15	0	0
			66	26	33
		SUPPER			
70	Cottage cheese, or fish	3 T.	3	16	1
40	Cream 40%	3 T.	1	1	16
90	Potato	1 small	16	3	0
30	Bread—whole grain	1 slice	16	3	0
100	Vegetable 10%	½ cup	6	1	0
100	Vegetable 5%	½ cup	2	0	0
200	Milk	1 cup	10	6	8
15	Butter	½ square	0	0	12
150	Orange (Fruit 10%)	1 medium	15	0	0
			69	30	37
			70	24	33
			66	26	33
			205	80	103
			4	4	9
			820	320	927
					320
					820
					Calories = 2067

TABLE I—Dietary Essentials

1. Energy-Producing Foods (25 to 70 cal. per Kg.)*	(a) Carbohydrates (100 to 200 Gm.)	Provide enough to maintain normal stores in liver and muscle. Carbohydrate provides glycogen to protect the liver. Average about 40%.
	(b) Proteins (1 to 3 Gm. per Kg.)*	Provide enough to maintain nitrogen balance and permit normal growth and repair of tissues. Average 1 Gm. per Kg. of body weight (adult), 15%.
	(c) Fats (60 to 125 Gm.)	Fats serve primarily as reserve and secondarily as available fuel. The optimum requirement has not been definitely determined. About 100 Gm. daily is normal. Average about 45%.
2. Minerals	1 pint of milk 1 egg 1 serving (90 to 120 Gm.) meat 3 teaspoonfuls (15 Gm.) butter	About 1,200 calories. (Any diet containing less than these quantities of protective foods should be fortified with vitamin supplements.)
3. Vitamins	4 servings whole grain bread or cereal 2 servings vegetable (other than potato) 1 raw 2 servings fruit (1 raw)	

* High values for young, growing, active persons. Low for old, sedentary patients.

by calculating his diet (Table II). Patients usually admit that the only possible entrance for the excessive fat under the skin is through the oral cavity. It often helps to point out to the overweight diabetic that he can take his choice, either co-operate on a diet and lose all or most of his diabetes, or eat what he pleases and take insulin the rest of his life. However, in most cases excellent results may be obtained without anything more complicated than reference to the patient and the office scales.

TABLE II—Calculation of Basal Diet

Example:

Patient weighing 60 Kg. (132 lb.):

60 Kg. ×25 calories . . . . . 1,500 cal. Total per day

I. Carbohydrate (40% ×1,500) . . . . . $\frac{600}{4}$ cal. = 150 Gm.

Protein (15%) . . . . . $\frac{240}{4}$ cal. = 60 Gm.

Fat (45% ×1,500) . . . . . $\frac{675}{9}$ cal. = 75 Gm.

II. Calculation by ratio method—Example 2C to 1F

Protein—(1 Gm. per Kg.) 60 Kg. ×1 ×4 cal. = 240 cal. = 60 Gm.
2 C + 1 F — [(2 ×4 cal.) + (1 ×9 cal.)] . . . . . = 17 cal.
Calories supplied by C+F (1,500—240) . . . . . = 1,260 cal.
Fat allowance (1,260 ÷ 17) . . . . . = 74 Gm.
Carbohydrate allowance (74 ×2) . . . . . = 148 Gm.

III. Patient's diet is

Carbohydrate	Protein	Fat
150	60	75
× 4	× 4	× 9
600	240	675
		240
		600
		1,515 cal.

Since 1929 I have never given less than 100 gm. of carbohydrate daily to diabetic patients.[11] If this is impossible because of illness, at least 100 gm. of dextrose is administered by vein each twenty-four hours, usually 25 gm. every six hours. Although it is not absolutely essential, it is possible in many cases to avoid injecting an extra dose of insulin by giving approximately 25 per cent of the carbohydrate for breakfast, 35 per cent at lunch, and 40 per cent at dinner, thereby taking advantage of the Hamman and Hirschman (Staub-Trougott) effect. By the method suggested patients are not fed strictly according to their calculated caloric requirements, but instead one depends upon the weight and condition of the patient, the blood sugar level, cholesterol, glycosuria, and general sense of well-being to measure the dietary requirement. The obese person may be placed on diet number A_2 until his weight returns to normal, then he is advanced to diet number D; and if weight loss still continues, he is advanced to diet number H. The thin person may be placed on a larger diet to begin with, and if this is not adequate to provide the desired gain in weight, the fats are increased by addition of butter and cream until the proper response is obtained. Any diet which does not satisfy nutritional requirements should be fortified by supplementary vitamins.

Insulin Therapy

It was startling to see the report from Cincin-

[11] Peck, F. B.: Higher Carbohydrate Diets in Treatment of Diabetes, *Am. J. Med. Sc.*, **192**:697, 1936.

nati[12] that out of one hundred eighty-three diabetic patients who died in 1940 only one-fourth had been taking a planned diet regularly and only thirty-nine cases, or 21 per cent, had received regular injections of insulin. In our group of more than one thousand diabetic patients observed prior to 1929, we[13] found insulin necessary in one-third of all the cases. It was used temporarily in another third, while the remaining patients got along without it entirely. In 1930 I began to prescribe insulin arbitrarily in all uncomplicated cases that did not become sugar free within a week after following a diet containing 100 gm. of carbohydrate, 60 gm. of protein, and 60 gm. of fat. At the close of another five-year period in the same clinic, 53 per cent of all patients were receiving insulin, but the average dose had declined. My present indications for insulin therapy are summarized in Table III: (1) always in diabetic children; (2) always during complications, such as infections, surgery, delivery, and diabetic coma; and (3) in all other cases that demonstrate an inability to maintain normal weight and strength without hyperglycemia and glycosuria.

Protamine zinc insulin, because of its slow but very prolonged effect, is regarded as basic in all cases; whereas unmodified insulin, from either amorphous or crystalline sources, is employed as a supplement when a quick and short but powerful action is required. Quick insulin is especially indicated in emergencies and during complications where the requirement for insulin fluctuates rapidly, in very young children who are incapable of intelligently interpreting symptoms of hypoglycemia, and supplementary to protamine zinc insulin.

TABLE III—Insulin Therapy

General Indications

1. All diabetic children
2. Complications—e.g., infections, surgery, pregnancy, coma
3. Inability to maintain normal weight and strength without hyperglycemia and glycosuria

Indications for Various Preparations

PROTAMINE ZINC INSULIN	INSULIN
1. Basic in all cases	1. Emergencies and complications (a) Acidosis and coma (b) Acute infections (c) Chronic infections with fluctuating Insulin requirement (d) In surgery, operations, and delivery 2. Very young children 3. Supplementary to Protamine Zinc Insulin

MIXTURES OF
INSULIN AND PROTAMINE ZINC INSULIN*

1. Total Insulin dosage more than 30 units daily
2. Multiple dose cases, e.g., $\frac{10}{(30)}$-5-10
3. Hypoglycemia unresponsiveness
   (a) Addison's disease
   (b) Liver damage with impaired glycogen storage
   (c) Young children

* Protamine Zinc Insulin denoted by circle.

As pointed out by Lawrence[14] unmodified or soluble insulin is capable of balancing a great deal of exogenous carbohydrate; whereas, protamine zinc insulin balances exogenous carbohydrate very poorly and consequently may, in severe cases, predispose the patient to postprandial hyperglycemia and glycosuria. Single doses of protamine zinc insulin, when compared with the action of multiple doses of unmodified insulin, show characteristic effects on the twenty-four hour blood sugar curve which are, however, almost exactly opposed. The post-absorptive (fasting) blood-sugar level in insulin-treated cases of severity is characteristically elevated, but it falls during the daytime when insulin is being injected prior to meals. In the case of protamine zinc insulin, however, the level of blood sugar fasting is low, while it ascends in the daytime because active insulin is being released too slowly to compensate for the sudden influx of carbohydrate following meals.

It is important to realize that although a single dose of protamine zinc insulin exhibits a characteristic peak effect sixteen to twenty hours after the dose, this concept does not apply in patients who are being treated clinically for diabetes and are taking three meals each day. Protamine zinc insulin acts longer than twenty-four hours; consequently, when doses are being given regularly each morning, the latter part of the effect of the dose given the first morning is superimposed on the first effects of the dose given on the second morning. When calculated by a cumulative curve it has been shown that protamine zinc insulin releases its active insulin at a fairly uniform and constant rate provided it is given in a single dose each twenty-four hours.[15] Because of this Ricketts[16] concluded, from different data, that protamine zinc insulin regulates chiefly the endogenous carbohydrate metabolism. This explains its inability to prevent glycosuria and hyperglycemia following the ingestion of large amounts of carbohydrate (meals), the unimportance of the time of giving the dose so long as it is given daily, and the reason true cumulative action does not persist beyond the first two or three days.

Although it has been general experience that patients having mild or moderate diabetes, whose total insulin requirement does not exceed thirty (or forty at the most) units daily, usually do well with protamine zinc insulin alone, the characteristics of

[12] Council on Diabetes, a bulletin of the Cincinnati Academy of Medicine, Facts about Diabetes in Cincinnati, (January) 1941.

[13] Wendt, L. F. C., and Peck, F. B.: Diabetes Mellitus, A Review of 1,073 Cases, *Am. J. Med. Sc.*, **181**:52, 1931.

[14] Lawrence, R. D.: Zinc Protamine Insulin in Diabetes, *Brit. M. J.*, **1**:1077, 1939.

[15] Peck, F. B.: Therapeutic Application of the Various Insulins, *South. Med. & Surg.*, **103**:539, 1941.

[16] Ricketts, H. T.: Constancy of Action of Protamine Zinc Insulin, *Am. J. M. Sc.*, **201**:51, 1941.

protamine zinc insulin have necessitated the injection of multiple doses of insulin and protamine zinc insulin in severe cases. In order to equalize the metabolic load and the available active insulin which has been injected, various expedients have been employed involving dietary rearrangement, such as the use of slowly-absorbed and slowly-digested foods, and the provision of small lunches and extra feedings between meals and at bedtime, procedures which necessitate considerable familiarity with diet calculations and the expenditure of considerable time on the part of the physician. As a result, these methods have not been widely adopted in general practice. As an alternative procedure, administration of supplementary doses of unmodified insulin in conjunction with the morning injection of protamine zinc insulin has become generally accepted.

More recently, attention has been directed toward the development of a technic whereby an insulin preparation having an intermediate effect might be mixed extemporaneously, and "tailor made" to fit the needs of each patient. This procedure is surprisingly easy and may be accomplished by the use of the standard preparations which are already on the market. Details of the development of this technic have appeared in several recent reports.[17,18,19,20,21,22] Indications for the use of mixtures of unmodified insulin and protamine zinc insulin to obtain an intermediate "adjustable" effect are: (1) in cases having a total insulin requirement above thirty units daily; (2) cases requiring multiple injections, for example, thirty units more or less of protamine zinc insulin with a supplementary dose of unmodified insulin before breakfast, and additional supplementary small doses of insulin before one or more of the remaining meals; and (3) patients who respond poorly to hypoglycemia if prolonged, e.g., Addison's disease, patients having impairment of glycogen storage in the liver, and young children. At present we see no special indication for using anything other than a single injection of protamine zinc insulin in the patient who requires thirty units or less each day as these cases are easily and satisfactorily controlled by one injection of protamine zinc insulin. Nevertheless, these patients also respond exceedingly well to injections of mixed insulin.

[17] Ulrich, Helmuth: Clinical Experiments with Mixtures of Standard and Protamine Zinc Insulins, *Ann. Int. Med.* **14**:1166, 1941.

[18] Colwell, A. R.; Izzo, J. L., and Stryker, W. A.: Intermediate Action of Mixtures of Soluble Insulin and Protamine Zinc Insulin, *Arch. Int. Med.*, **69**:931, 1942.

[19] Peck, F. B.: Action of Insulins, *Proc. Am. Diab. Assoc.*, **2**:69, 1942.

[20] Peck, F. B.: Approximate Insulin Content of Extemporaneous Mixtures of Insulin and Protamine Zinc Insulin, *Ann. Int. Med.*, **18**:177, 1943.

[21] MacBryde, C. M., and Roberts, H. K.: "Three to One" Modified Protamine Zinc Insulin. An Improvement on Market Protamine Zinc Insulin, *Proc. Central Soc. Clin. Research*, **15**:7, 1942.

[22] Sparks, M. I., and John, H. J.: The Clinical Use of Mixtures of Insulins, *Ohio State M. J.*, **39**:226, (March) 1943.

FIGURE I

INSULIN-PROTAMINE ZINC INSULIN MIXTURE*

Under Sterile Precautions:

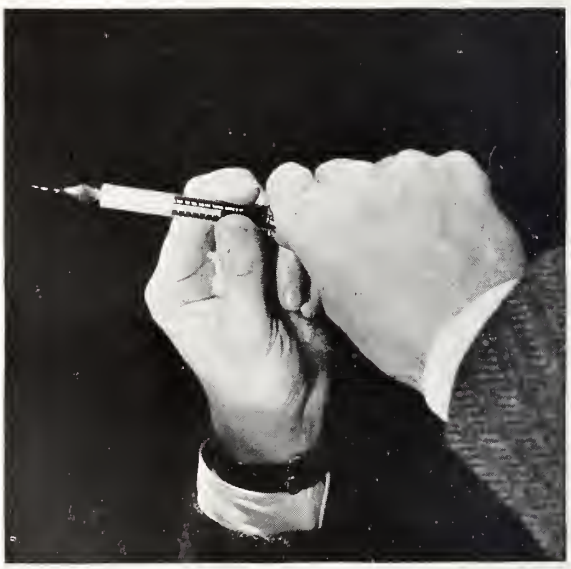
1. Inject volume of air equal to dose into top of vial of protamine zinc insulin. Withdraw needle.

* Use 2 cc. syringe if total dose exceeds 1 cc.

Method

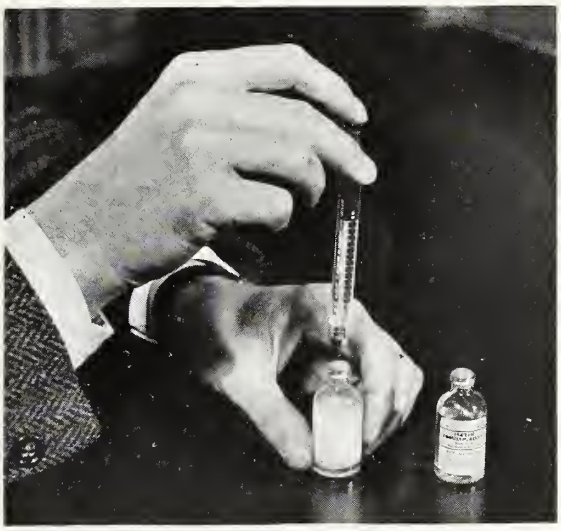
Some observers have criticized the mixture technic on the grounds that it is too complicated for ordinary patients to follow. This has not been our experience, nor have Sparks and John[22] found it so. We have used mixtures of this type not only in hospitalized patients but also in the out-patient clinic at the Indianapolis City Hospital where the group includes patients of lower economic levels than may be found in private practice. No difficulty has been encountered and it has not been any harder to teach these patients to take a mixture than it was to instruct them in making separate

FIGURE I—continued.



2. Inject air and withdraw proper dose of insulin from vial in usual manner.

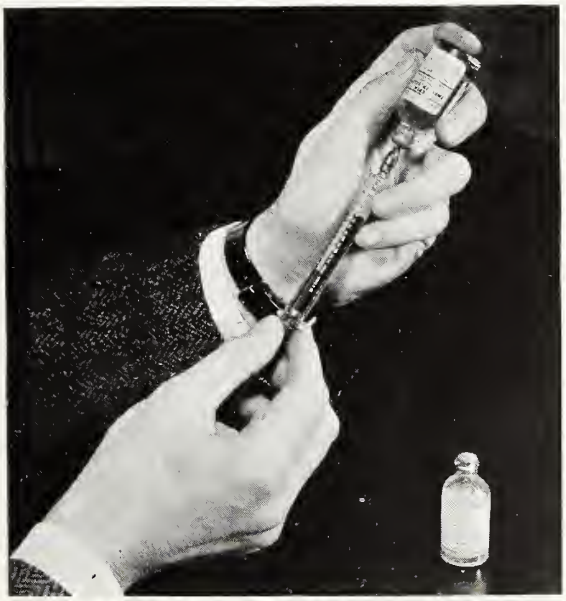
FIGURE I—continued.



3. Invert vial of protamine zinc insulin several times and withdraw dose into syringe containing the insulin.

injections. The same steps are involved and only one or two precautions are necessary (Figure 1). It must be emphasized that the dose of unmodified insulin is drawn into the syringe first and followed by the proper quantity of protamine zinc insulin. The total dose is then mixed by rolling an air bubble through the syringe before making the injection. Mixtures are always made from preparations having the same concentration (either 40 or 80 units per cc.).

FIGURE I—continued.



4. Holding syringe with needle upright, draw air bubble into syringe, invert as shown, and roll bubble through to mix.

Adjustment of Doses

The technic of beginning treatment of the uncomplicated case with insulin and protamine zinc insulin does not differ from the generally-accepted procedure recommended by Joslin. It is outlined in Table IV. Note especially that the dose of protamine zinc insulin is increased gradually until the postabsorptive tests before breakfast (blood sugar and/or urine) are normal or nearly so. To increase the dose further will induce nocturnal hypoglycemia. If postprandial levels of blood

FIGURE I—continued.

5. Expel air bubble and inject in usual manner.

sugar are excessive, as shown by tests of the urine at 11:00 A.M. and 3:00 P.M., or by blood sugar determinations at these hours, it is obvious that more soluble insulin is needed during the daytime, and supplementary doses of insulin are instituted, depending upon the amount of glycosuria. Readjustment of doses depends upon these findings: tests *before breakfast* guide the dose of protamine zinc insulin, and tests *after meals* guide the dose of insulin.

When the total insulin dosage exceeds thirty units daily or when multiple injections must be given to obtain satisfactory twenty-four-hour control, the third step, that of substituting an insulin-protamine zinc insulin mixture, may be taken. Until a little experience has been gained it is suggested that one refer to the approximate unitage table (*Ann. Int. Med.*, p. 179, February, 1943) which gives the proportions used in preparation of various mixtures and their approximate content of quick and long-acting insulins. However, one may instead obtain proper distribution of the mixture by trial, beginning with a mixture containing equal quantities of insulin and protamine zinc insulin (1:①) to replace the total number of units previously given in

multiple injections. The mixture may subsequently be adjusted depending upon the same criteria as before, namely, the presence of daytime glycosuria or hyperglycemia which indicates that more insulin is needed in the mixture, and the findings before breakfast (fasting) which determine whether more or less protamine zinc insulin is needed. *The quantities of insulin and protamine zinc insulin in the mixture are determined by the same criteria which govern the administration of single doses of these products.* There is no point in using a smaller quantity of insulin than of protamine zinc insulin, for mixtures containing less insulin than protamine zinc insulin show no significant differences in effect from protamine zinc insulin. In our experience thus far, the most generally useful mixture has been one containing about twice as much insulin as protamine zinc insulin, or roughly 2:①. In fact, we often begin with this proportion, then increase or decrease the amount of insulin in the mixture according to the findings outlined above.

The advantage of this method lies in its simplicity and its adjustability to individual cases, owing to the fact that a preparation is provided which has the ability to metabolize a greater amount of exogenous carbohydrate during the daytime, thereby avoiding postprandial hyperglycemia and glycosuria. At the same time, it permits the patient to take all his insulin for the day in a single injection, before breakfast in the morning. He is not exposed to the same risk of nocturnal hypoglycemia as is the case when large doses of protamine zinc insulin are given; since the most common time for hypoglycemia will be in the afternoon. The patient is then awake and may be on guard against it, or may protect himself by taking a small amount of carbohydrate if this proves to be necessary. If reactions occur frequently at this time the proportion of insulin in the mixture may be reduced somewhat.

TABLE IV—Method*

Recent cases and those not previously treated	Patients taking Insulin
I. (a) First day—⑩ units Protamine Zinc Insulin (b) Increase daily by ⑤ to ⑩ units until urine is nearly sugar-free on arising, or until blood-sugar (fasting) approaches 100 mg. per 100 cc.	I. Replace total daily dosage with three-fourths as much Protamine Zinc Insulin (a) Increase dose until urine sugar-free on arising
II. If glycosuria and hyperglycemia persist after meals (a) Readjust food and exercise, or (b) Add supplementary dose of Insulin varying with Benedict test: e.g.: YELLOW 5 units ORANGE 10 units RED 15 units	← II.
III. Replace multiple injections with mixture (Table II, Ann. Int. Med., **18**:177, 1943), or (a) Replace total by trial with 1:① mixture (b) If **daytime** glycosuria and hyperglycemia persists, increase ratio to 3:②, or 2:①, (3:① rarely) (c) If **postabsorptive (fasting)** glycosuria and hyperglycemia, reduce amount of Insulin in mixture	

* Protamine Zinc Insulin denoted by circle. Ratio of mixture, e.g., 1:① refers to parts of Insulin and Protamine Zinc Insulin in terms of units. Mixtures are always prepared from proportions having the same concentration.

CASE REPORTS

A few case reports from the group of more than fifty patients taking mixtures have been briefly summarized to show some typical examples. The cases were chosen to demonstrate some special problem, since these are the ones which ordinarily cause the most difficulty and are most apt to require multiple injections of insulin and protamine zinc insulin. Only abbreviated records are shown. In common with the others of the group, all these cases have shown decided improvement in the level of control since readjustment to one single dose of the appropriate mixture. Both pre-mixed and extemporaneously prepared injections have been utilized. Because of their easy adjustability, we prefer to use the mixture which is made by the patient just before injection.

Case I

This patient is still overweight. She has had eighteen prior hospital admissions since onset of diabetes in 1924, when she was treated for diabetic coma, and has had several operations and an assortment of infections. Her diabetes has always been severe, necessitating large doses of insulin. In 1939 she weighed 216 pounds, her diet was C-140, P-90, F-80 = 1,640 calories, and she was taking (40) units of protamine zinc insulin before breakfast and (35) units before supper, with supplementary injections of 35 units of insulin before breakfast, 5 units before dinner, and 22 units before supper, a total of 142 units. Nevertheless, she was rarely sugar free, and blood-sugar levels in mid-morning after breakfast averaged 240 mg./100 cc. for the

CASE I

Name F. C. No. 5007 Age 48

Diet C 100 P 60 F 60 = Cal. 1,180

DATE	INSULIN* Morning PZI	Morning I	Noon I	Eve. I	Night I	Total	BLOOD SUGAR Fast	11 A.M.	4 P.M.	Night	URINE SUGAR Fast	11 A.M.	4 P.M.	Night	REMARKS
10/11	⑩	30		15 ⑳		105			272		3		4		
10/12	㉚	40		15 ⑳		105					1	3			
10/13	㉚	40		15 ㊵		125					2	3	2		
10/14	㉚	40		30 ⑮		115					2	1	2		
10/15	㊵	40		30 ⑮		125					3	1	4		
10/19	㊵	40		30 ⑮		125	301				Tr		1		
10/26	㊽	40		20		140	108				–	Tr	–		
11/4	㊽	40		20		140	238				–	Tr	Tr		
11/7	㊽	40		20		140	169		118		Tr	Tr	–		
11/11	㊽	40		20		140	95		140		–	–	Tr		
11/14	㊽	40		20		140	100		56		Tr	Tr	–		
11/18	[100]					100	140		147		Tr	Tr	–		T-1662 2:①
11/21	[100]					100			118		Tr	1	Tr		
11/25	[100]					100	103				–	–	–		
Interrupted for 24 hour constant feeding curves															Discharged to O. P. D.
1/28	[90]					90	76		105		–	–	–		
2/25	[90]					90	76				–	–	–		
3/10	[80]					80			103		–	–	–		
3/25	[75]						78		105		–	–	–		

* ○ Protamine Zinc Insulin ☐ Mixture

year. In 1941 her diet was lowered to C-100, P-60, F-60 = 1,180 calories, to reduce her weight, and some supplementary vitamins were furnished to protect her from developing a deficiency. She now weighs 181 pounds. Shift to a 2:① mixture was made abruptly from a three-dose regimen requiring 140 units daily. Progress may be followed on the summary chart. The patient was discharged on December 7, 1942, and her total insulin requirement with the 2:① mixture is still slowly declining. She now remains entirely sugar free, and has satisfactory blood-sugar levels on 75 units of 2:① mixture before breakfast (T-1662, pre-mixed). Moré recently, transfer was made to an extemporaneous mixture with no alteration of her control.

Case II

This case illustrates the ease of readjustment of dosage following coma. The patient is a young, somewhat overweight, colored female who was admitted to the Indianapolis City Hospital on December 20, 1942, in diabetic coma. She responded to treatment without incident, and four days later was given a diet of C-160, P-70, F-80 = 1,640 calories. From four doses daily, totalling 45 units, transfer was made to two separate doses before breakfast, each of twenty units. Control was satisfactory, but for convenience a mixture was then substituted, consisting of twenty units each of insulin and protamine zinc insulin. The patient has been sugar free since and has required a few units less insulin daily.

CASE II

Name B. D. **No.** 206483 **Age** 18

Diet **C** 160 **P** 70 **F** 80 = **Cal.** 1,640

DATE	INSULIN*						BLOOD SUGAR				URINE SUGAR				REMARKS
	Morning		Noon	Eve.	Night	Total	Fast	11 A.M.	4 P.M.	Night	Fast	11 A.M.	4 P.M.	Night	
	(PZI)	I	I	I	I										
12/20															Coma
12/24	(10)	20	10	5		45	235		240		3+	4+	3+		
1/1	(20)	20				40	132		131		Tr	–	–		
1/3	(20)–20					40					Tr	–	–		
1/7	(20)–20					40	134		84		–	–	–		
1/9	(20)–20					40	104								Discharged to O. P. O.
1/14	(20)–15					35		99			–	–	–		Reaction—noon
2/11	(18)–18					36	175				–	–	–		
															Readmitted—infection
4/5	(18)–18					36	85		83		–	–	–		
4/9	(18)–18					36	95		87		–	–	–		
4/12	(18)–18					36	83		107		–	–	–		

* ○ Protamine Zinc Insulin ☐ Mixture

Case III

An occupational problem makes this case of particular interest. The patient is a student nurse who is very susceptible to hypoglycemic reactions, a "brittle" diabetic, who is not always working where it is possible to make urine tests at proper hours. Her case responded fairly well to ordinary routine management until she developed a series of reactions between September 9 and 14, one of which was particularly violent from the emotional standpoint. It was considered best to readjust on a somewhat higher level rather than risk further outbursts which might endanger her career. Consequently, she is not always sugar free, and we have no intention of making her so. Nevertheless, her progress while taking a single dose of the mixture was uniformly better than when injections were made separately. She has since passed through an attack of scarlet fever during which the insulin requirement was elevated, and it became necessary to add more unmodified insulin to the 2:① premixed preparation she had been taking. This illustrates the impracticability of the premixed preparations which are of definite fixed proportion.

CASE III

Name N. H. **No.** 204054 **Age** 21

Diet **C** 250 **P** 85 **F** 100 = **Cal.** 2,240

DATE	INSULIN*						BLOOD SUGAR				URINE SUGAR				REMARKS
	Morning		Noon	Eve.	Night	Total	Fast	11 A.M.	4 P.M.	Night	Fast	11 A.M.	4 P.M.	Night	
	(PZI)	I	I	I	I										
8/29	(20)	25	15			60		278	233		2+	4+	4	Tr	
9/2	(25)	30	10	10		75	145	44	91		2+	–	–	Tr	
9/5	(25)	35	10	10		80	188	180	150		4	4	2	Tr	
9/9	(40)	25		5		70	127	89	149		2	1	1	2	
9/14	(40)	45		5		90	76	33	58		–	–	–	–	C 200, P 85, F 100 = 2,040 Cal.
9/22	(20)	15				35	242	253	194		3			3	
9/30	(25)	20				45	164	132	111		1+	Tr	Tr	Tr	
10/3		45				45	164	296	100		1	2	1		Start 2 ①mixture T-1662
10/6		45				45	63	155	85		–	–	Tr		3 p.m. Lunch
2/3		40				40	93	296			–	1+	–	–	
2/18		35 5				40	114		203		–	Tr	1+	–	
3/4		37				37	85		195		Tr	–	1+	–	

* ○ Protamine Zinc Insulin ☐ Mixture

Case IV

Mrs. T., a colored woman, fifty-five years of age, has had diabetes since 1939, and recurrent pyelitis. She was practically never sugar free and has always shown persistently high blood-sugar levels. On examination in the Diabetic Clinic on December 19 her postprandial blood-sugar level was found to be 465, and she was admitted to the hospital for observation. On finding pyuria, a course of sulfathiazole was instituted and the pyelitis subsided. Nevertheless, she still remains a difficult case as shown by the summary of her progress while in hospital and following discharge. Dietary management at home is not accurate, but is comparable with the diet taken before admission. What can be accomplished in such a case is best illustrated by the period from December 30 until discharge on January 21.

CASE IV

Name F. T. **No.** 80811 **Age** 55

Diet **C** 135 **P** 65 **F** 90 = **Cal.** 1,610

DATE	INSULIN*						BLOOD SUGAR				URINE SUGAR				REMARKS
	Morning		Noon	Eve.	Night	Total	Fast	11 A.M.	4 P.M.	Night	Fast	11 A.M.	4 P.M.	Night	
	(PZI)	I	I	I	I										
8/4	(40)	20		15		75		367			3	2	2	2	
12/19	(20) (40)	40	40	40	30	210				465	2	–	4	4	
12/22	(40)	40	35	15		130	244				1	4	1	2	
12/23	(40)	40	40	20		140	163				1	3	4	–	
12/25	80					80	150		158		–	1		2	Mixture 2 ① T-1662
12/30	80			15		95	154				1	3	3	3	Pyelitis
12/31	90			15		105					–	Tr	–	–	
1/5	(65)–75					100			90		–	–	–	–	Extemp. 3 ①
1/7	(65)–75					100	184		87		Tr	–	–	–	
1/13	(65)–75					100	172		94		2				
1/18	(66)–66					102	133		196		–	–	–	2	
1/21	(66)–66					102					–	Tr	Tr	–	
1/22	(66)–66					102					–				Discharged to O. P. O.
1/28	(66)–72					108	163				–	2	–	1	
2/3	(40)–80					120	163				1	1	2	1	
2/18	(38)–76					114	220				1	2	1	1	Reactions—P.M. (Extra CH)

* ○ Protamine Zinc Insulin ☐ Mixture

Case V

Although now nineteen years of age, this patient is poorly developed, does not menstruate regularly, and has the appearance and attitude of a child several years younger. Her diabetes is of six and one-half years duration, of the labile type, and in spite of reasonably good co-operation at home its course has been marked by periodic lapses in control, acidosis, and many acute infections. The chart shows the trend of progress; only a few typical days are shown, but they demonstrate clearly the improvement following mixed insulin therapy. Following her discharge from the hospital in November it was rather difficult to keep pace with her improvement in tolerance, and reactions in the daytime were rather frequent. She has had another hospital admission following an acute upper respiratory infection and sinusitis. The mixture was continued with supplementary doses of insulin during the acute infection.

CASE V

Name M. S. No. 31664 Age 19

Diet C 150 P 80 F 100 = Cal. 1,820

DATE	INSULIN * Morning (PZI)	Morning I	Noon I	Eve. I	Night I	Total	BLOOD SUGAR Fast	11 A.M.	4 P.M.	Night	URINE SUGAR Fast	11 A.M.	4 P.M.	Night	REMARKS
1941 11/13	(30)	15		10		55		440			(24 hour — 4)				93 lbs.
1942 1/6	(30)	25	10	15		80		333			(24 hour — 4)				
5/12	(25)	12		12 10		59		184			(24 hour — Tr)				97 lbs.
5/21	(15)-15			10 5		45		121			(24 hour — Tr)				
Good control until 10/27/42: impetigo; discharged 11/19—25/40—0-15															
12/3	(20)-35			10		65		28			–	–	–	–	99 lbs.
12/17	(20)-35			5		60					–	–	–	–	Reactions
1943 1/7	(15)-30					45		38			–	–	–	–	
1/14	(14)-28					42	97				–	–	–	–	
1/28	(12)-24					36	101	278			–	–	Tr	–	
2/15	Influenza, followed by sinusitis.														
3/18	(15)-36					52	147				Tr	–	–	–	
4/1	(15)-30					45	112				–	–	–	–	
5/6	(15)-30					45	87				–	–	–	–	

* ○ Protamine Zinc Insulin ☐ Mixture

SUMMARY

Mixtures of insulin and protamine zinc insulin, either prepared in the syringe prior to injection or premixed in vials ready for use by the patient, have shown decided advantages in the treatment of diabetes. As a rule, fewer total units have been required, better twenty-four-hour control has been established, and only one dose each twenty-four hours has been necessary.

The one-dose method has simplified diabetic treatment rather than complicated it. A mixture containing approximately two parts of insulin to one of protamine zinc insulin has been most generally useful. Nocturnal hypoglycemia has been avoided without sacrificing good twenty-four-hour control.

REPORT OF A CASE OF PALINDROMIC RHEUMATISM

JOHN L. FERRY, M.D.*

WHITING

An unusual form of rheumatism was reported in 1941 by Hench and Rosenberg.[1] This illness is characterized by the occurrence of repeated acute attacks of joint pain, typically of short duration, which leave without any permanent disability being evident in spite of many attacks having occurred. The affection seems to be similar to or identical with those described by Solis-Cohen[2] and by Kahlmeter.[3]

Typically, the attacks start in the late afternoon, although they may occur at any time of day or night. The period of maximum pain and disability is quickly reached, with severe throbbing or burning pain in the joint, which usually makes it unusable. The joint is reddened, warm and swollen. In the larger joints a hydrarthrosis may be evident. The pain may be severe enough to require the use of narcotics. Yet with all these symptoms there is no fever or leukocytosis, and in persons who have had many attacks there is no development of anemia nor is there any weight loss. In about 30 per cent of Hench's series of thirty-four cases the acute attacks were accompanied by the appearance of firm, red swellings in the skin about the affected joints or of that nearby. These swellings may cause severe pain, but usually last only a few hours.

Episodes of joint pain usually affect only one joint at a time, although occasionally several joints may be involved simultaneously. When another attack occurs, it usually involves some joint other than that previously affected. There seems to be an especial predilection for the joints of the fingers;

* From the Whiting Clinic.

[1] Hench, P. S., and Rosenberg, E. F.: Palindromic Rheumatism, A "New," Oft-recurring Disease of Joints (Arthritis, Peri-arthritis, Para-arthritis) Apparently Producing No Articular Residues: Report of Thirty-four cases (Its Relationship to "Angioneural Arthrosis," "Allergic Rheumatism" and "Rheumatoid Arthritis"), *Proc. Staff Meet., Mayo Clinic*, **16**:808-815, (Dec. 17) 1941.

[2] Solis-Cohen, Solomon: On Some Angioneurotic Manifestations In and Around Joints, Frequently Mistaken for Gout and Rheumatism, *Tr. A. Am. Physicians*, **28**:739, 1913.

[3] Kahlmeter, G.: Y a-t-il des formes de rhumatisme articulaire et periarticulaire d'une nature réellement alergique? *Acta med. Scandinav.*, **102**:432-443, 1939.

the wrists, shoulders, knees, toes and the elbows are less commonly affected. However, any joint in the body may be involved.

In the majority of cases the onset of this condition occurs between the ages of twenty and thirty-nine. The frequency of attacks is reported to be at intervals, varying from days to months. The individual attacks last from a few hours to a week. The average duration is said to be from one to three days.

To date the cause of this condition remains a matter of conjecture. It seems to be totally different from any of the usual forms of arthritis, and there is no evidence that infectious, degenerative or metabolic processes are involved in its appearance. There is some reason to believe that the process may be allergic, yet in the majority of patients there is no clear-cut personal or familial history of allergy, nor does this illness respond to the treatment usually effective in allergic conditions.

The laboratory studies made in these patients are essentially normal except for the following findings: the blood fats, especially the fatty acids and the total fats, are found to be moderately elevated; the erythrocyte sedimentation rate is usually slightly increased during the attack, and there is usually a relative lymphocytosis either during or between attacks. Roentgenograms of the affected joints reveal nothing which can be attributed to the rheumatism present.

During the acute attack an acute or subacute inflammatory process is found in the joint capsule, the synovial membrane, or in the tendon sheaths. In the larger joints a hydrarthrosis may be noted. Between attacks no pathological change is noted even though the joint has been the seat of numerous episodes of pain.

This condition is differentiated from the usual forms of rheumatism by its unusual clinical features and the essentially normal laboratory findings.

All the therapeutic procedures usually tried for chronic arthritis have been used also for palindromic rheumatism, and in all cases the results have been disappointingly poor in regard to the prevention of subsequent attacks. In a few cases there seems to be a definite relationship between this condition and nervous strain, and some of these patients have been benefitted by easing the emotional tension.

In about half of the patients there is a spontaneous cure or amelioration of the illness as time goes on. In others it remains the same or gets worse. Fortunately, it causes no disability even after hundreds of attacks.

CASE REPORT

The patient is a married nurse of thirty-nine years. She complained that in the past year she has had a series of attacks of acute joint pain. These have usually occurred at intervals of two to three months, but occasionally at intervals of a few days. Characteristically, these attacks come on very suddenly, in most instances in the evening, with a severe cutting pain in the joint. The appearance of disability is almost immediate and the joint becomes tense, warm and reddened. Occasionally the joint involvement has been accompanied by a firm, red swelling in the skin near but not always over the sore joint. If no medication is taken sleep is impossible. Attempts to relieve the pain by the use of heat have only served to make it worse. Splinting and padding of the joint have been helpful. In the majority of attacks the duration has been a matter of twenty-four hours. The most severe part of the attack occurs in the first eight to twelve hours with the pain gradually diminishing thereafter. There seems to be no relation between the attacks and upper respiratory infections, nor does there seem to be any relation to use of the joint. The patient feels that there is a definite premenstrual timing in most of the episodes. There is a possible relation to overwork in general, and the majority of attacks have come on during periods of worry and emotional tension. Her work is strenuous and involves a good deal of responsibility. She is meticulous and overconscientious.

The family history is negative in regard to rheumatism. A cousin has asthma.

Marital history: Duration four years; husband well; no pregnancies.

Past history: Has had diphtheria, epidemic influenza, and pneumonia. For several years has had functional bowel distress. Had a concussion of the brain four years ago. The only surgery was a tonsillectomy in 1931.

Inquiry by systems: Frequent attacks of conjunctivitis. Occasional tinnitus, vertigo, and nausea before menses. Functional colitis, easily controlled by diet. Frequent mild cystitis. No gain or loss of weight.

Physical examination: Height 61″. Weight 138 lbs. Temperature 98.0. Pulse 96. Respiration 22. Blood pressure 118/76. The patient is well developed and well nourished. There was no sign of distress noted at her first examination. The skin and hair were normal. No abnormality was noted in the eyes, ears, or nose. The teeth appeared sound and no evidence of infection was seen either in the gums or in the dental films. The thyroid was not enlarged. The lungs and heart were normal. No abnormality was noted in the thorax or spine. The liver edge was just palpable and slightly tender. No abnormality was observed of the extremities. Pelvic and rectal examinations were essentially normal. The reflexes were physiological.

The patient was observed during three of the acute attacks. These affected in turn a finger, the right wrist, and the left knee. The joints were very painful on attempted motion and quite tender

to touch. The overlying skin was tense and slightly reddened. On the occasion of involvement of the finger the distal joint was affected and there was a firm reddened area in the skin of the proximal portion. When the knee was involved there was an unmistakable hydrarthrosis present. Between the attacks there were neither symptoms nor objective joint changes.

Laboratory examinations: Urine, complete blood counts, and the Wassermann were all normal. The erythrocyte sedimentation rate was 2 mm. per hour. The blood cholesterol was 192 mg. per cent. The uric acid was 3.7 mg. per cent. X-rays of the affected joints and of the sinuses failed to show anything of significance.

Comment: As indicated previously, one may only speculate as to the cause of this interesting and unusual condition. In this particular case the patient suspects that the occurrence of the attacks may be related to periods of unusual emotional strain in connection with her work. No attacks have occurred in the absence of such tension. On the other hand, dietary indiscretions exacerbate her bowel distress, and on at least one occasion the attack of rheumatism has been simultaneous with a gastro-intestinal upset. No definite allergic reaction has been demonstrated by skin tests.

Since the cause is unknown, there is no satisfactory treatment for this illness other than palliative measures. We have found that codeine in doses of 0.03 gram (one-half grain) is effective in this patient. Heat seems to increase the pain. We object to the use of cinchophen and neocinchophen both in this and other forms of rheumatism because of the dangers connected with its administration.

This case is presented to illustrate a cause of painful joints which may be confused with the usual and better-known forms of rheumatism. The favorable prognosis in regard to permanent joint disability is reassuring to the patient, although we have nothing to offer in the way of preventing future attacks.

ABSTRACTS

SNAKE VENOM AND INTELLIGENCE

"Record has not been found in the scientific medical literature concerning the treatment of insanity with snake venom," *The Journal of the American Medical Association* for May 29 says in response to a query.

A physician in Peru wrote *The Journal* as follows:

"The bushmaster snake with neurotoxic venom is found in the jungles of eastern Peru. At a mission on the Perene River I saw a normal Indian who had recovered from the bite and who was said to be more intelligent than previously. This is the usual result. How does this compare with the use of snake venom in the treatment of insanity?"

Regarding snake venom and intelligence, *The Journal* says: "One snake dealer has been treated for five different bites and his wife for seven bites. Since they continue to handle snakes after being bitten five and seven times respectively, this seems to offer conclusive proof that this venom has not given them any excess of intelligence. There is evidence that the snake handlers in carnivals appear to possess superior mentality ,and horses which are used to make antiserum do not form an especially happy looking lot."

ABSORPTION DATA ON SOLVENTS WILL HELP INDUSTRY PROTECT WORKERS

Whether a new solvent used in a manufacturing process is largely absorbed by the body fluids and then eliminated principally through the urine like alcohol or is excreted by breath like ethyl ether should be determined and the rate of absorption and excretion defined, *The Journal of the American Medical Association* for May 22 advises in an editorial. "Such figures," *The Journal* says, "enable industry to set safe concentration limits in the air of workrooms, a point of the greatest importance in industrial medicine."

In its discussion of "Industrial Solvents," *The Journal* says:

"Most important in the field of industrial toxicology is the rapid development of new solvents for use in a variety of manufacturing processes. Many of these solvents were chemical curiosities a few years ago; now they are sold in carboy or even tank car lots. Inevitably the medical profession is consulted as to the possible harmful effects of using solvents and especially from breathing them.

"Possible dangers from the use of these new chemicals are appreciated by the chemical industry. Manufacturers often establish research fellowships or special contractual arrangements with universities such as Pennsylvania, Harvard and Cincinnati, with specially qualified institutions such as the Saranac Laboratories and the Industrial Hygiene Foundation and with private consultants. Some manufacturers have well equipped laboratories of their own and staffs of specialists whose sole work concerns the industrial toxicology of their own products. The industrial hygiene laboratories of the Public Health Services at Bethesda, Md., are publishing an ever increasing volume of fundamental researches on industrial toxicology which are of the utmost importance to industry.

"With this new information it is surprising that there has not been more interest in one of the fundamental problems of industrial toxicology—how much of some particular solvent is absorbed by a man exposed under definite conditions and how rapidly he excretes it when exposure ceases. . . .

"In the paper by R. W. McKee and others [in the May 22 issue of *The Journal*] analogous studies with carbon disulfide are described. . . . Carbon disulfide is absorbed largely by inhalation; the time required to produce saturation of the blood depends entirely on the concentration in the air breathed and is proportionally longer for higher air concentrations. The major part of the absorption of carbon disulfide at the low concentrations such as one encounters in industry takes place in the first thirty minutes, although complete saturation of all body tissues probably takes somewhat longer. Elimination by exhalation follows the same principles, but a considerable portion of the vapor is metabolized, which probably accounts for its recognized toxicity. . . ."

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JULY, 1943

A. M. A. PRESIDENTS REAL LEADERS

American Medicine has been most fortunate in having real leaders as its presidents during these last few critical years. A president several years ago, Dr. Irvin Abell foresaw the necessity of getting ready for war and formed the medical military preparedness committee throughout the nation. Dr. Frank Lahey, his successor, carried on the work and has been a remarkable leader as chairman of the Procurement and Assignment Service. The profession was most favored these past twelve months in having as its immediate past president a man of the courage, judgment and capabilities of General Fred Rankin, who is serving in the Surgeon General's Office. Dr. James E. Paullin, the present head of the association, already has shown leadership. He has served as a member of the Directing Board of the Procurement and Assignment Service and as president has laid the basis for sound post-war planning. In his talk before the House of Delegates in Chicago last month, entitled "The Planning of Medical Service for Present Needs and Future Requirements," he said:

"Medicine has a fundamental role and will assume an integral part in the establishment of enduring world peace.

"The medical profession of this country may be called on after the war to furnish teachers, instructors and practitioners to many countries, to aid in the care of those stricken with disease. We *must be prepared* to meet the demand.

"Poverty, hunger and disease know no bounds. Let us recognize our humanitarian obligation and duty, as representatives of a nation which possesses medical and other resources superior to those of any other nation in the world, to make our talents available in this emergency. Let us co-operate with all related organizations and governmental agencies interested in post-war rehabilitation, to help in achieving the restoration of health and hope to a world suffering the devastating effects of a ruthless war. Such an undertaking is one of the essentials of an abiding peace. To this end the medical profession dedicates itself until the world shall again be progressing peacefully on the paths of human advancement."

In this issue, THE JOURNAL of the Indiana State Medical Association is carrying General Rankin's talk to the House of Delegates. This courageous, forthright, realistic account of the present problems facing medicine and the country was the most discussed address of the meeting. THE JOURNAL is printing it in full in order that every Indiana physician at home and abroad may have the opportunity to read it. It took real courage for General Rankin to say some of the things he said, and he knew he would be criticized as well as praised for doing so, but General Rankin did just what he always has done and always, we hope, will do—"call 'em as he sees 'em." In this, even those who may not agree with him cannot help but admire him.

Dr. Herman L. Kretschmer, of Chicago, the newly-selected president-elect has many close personal friends in Indiana, and all who know him look to him with utmost confidence, knowing that in him the line of strong presidents that have headed the American Medical Association in this time of national emergency will be continued.

DOCTORS AND RATIONING

The rationing program with all its varied phases interests and affects every citizen of the United States, and it might be wondered just why we speak of doctors in this connection. It is because the medical profession has officially been advised as to what is expected of them in certain cases. For example, food rationing authorities have granted certain exceptions to those who need a special diet, provided the physician of that person makes a declaration to the effect that a variance of the rationing program is necessary. So it is with many other emergencies, such as an increased amount of oil used for heating homes — all of these requests are to be accompanied by a statement, duly sworn, from the physician.

This, of course, is as it should be, since the physician is in a better position to know the actual needs of the applicant. And it is presumed that as the war program goes on there will be additional rationing problems which the medical profession will be called upon to help solve.

A letter from Kenneth M. Kunkel, District Rationing Officer, provides a new angle in the matter,

this letter being addressed to the Indiana State Medical Association and a copy of same having been sent to every county medical society. The communication says, "We have been holding meetings with War Price and Rationing Boards in all parts of the state, and in almost every instance have we received complaints from them on the certification by physicians of mileage needed by individuals for medical attention." The letter then goes on to reiterate the necessity of gas and tire rationing and asks that the medical profession be a bit more careful in making recommendations for additional gas in these cases.

We of the Middle West know very little, first hand, of what gas rationing means; we have a designating card attached to our windshields, and a varying gas allotment to use as we might wish. Not so in the seaboard states, however; here gas really is rationed and pleasure driving is completely out. The other day we read of a chap who had driven his car in taking a member of his family to work, and on the way back had stopped to do a little fishing. The Rationing Board called him in and revoked his gas card for some six months, on the ground that he was using his car for pleasure purposes and that, in addition, the relative he had taken to work could have ridden a bus! No, we of Indiana have not felt the rationing pinch, although we are assured that we will in months to come.

To us, the certifying of the need of additional gas "for medical attention," seems quite overdrawn. We can understand why some invalids might require more of certain foods than is officially allowed by the rationing program; we can also understand why certain patients should be afforded more heat than is generally possible through the fuel-oil regulations, but this gas affair strikes us as being "screwey," and we believe Mr. Kunkel has just cause for calling the attention of the profession to the evils attending it.

Physicians as a whole have accepted the various rationing programs as matters of course, there naturally being some exceptions. For example, when gas rationing first came to be and physicians were asked to make out requests for a monthly estimate of their needs, some few doctors seemed to go berserk in the matter.

Some physicians estimated their monthly needs at five thousand gallons and were more than perturbed when told to be more reasonable; some even went so far as to say they were going to get all the gas they needed, willy-nilly, and that if they wanted to take a trip of some consequence, they would proceed to do that very thing. In other words, a few had decided they would do the very thing that too many physicians did when tire rationing first came along, take automobile trips of thousands of miles just because they were doctors and on the "preferred" list in the matter of new tires.

Let's be fair about this rationing program; let's meet the suggestions of the officials having these programs in charge. If one or more rationing programs is manifestly unfair to certain individuals, it is, of course, our duty to do something about it, but not to the degree that official complaint is registered of our actions.

A.M.A. AND PUBLIC RELATIONS

There can be no doubt as to the wisdom of the House of Delegates of the American Medical Association in establishing a Council on Public Relations at the Chicago meeting; and there is little doubt regarding the results the delegates hoped to accomplish thereby.

There are as many well-intentioned amateurs in public relations as in medicine. Almost everyone thinks that he knows public relations, just as almost every lay person is ready and willing to give medical advice. Be assured, however, that the public relations of organized medicine is as much of a problem for an expert in public relations as a delicate bit of brain surgery is a problem for an expert in another professional field. The present condition of organized medicine's relations with the public, which the House of Delegates recognized in its actions, is proof that doctors don't know the art of public relations. Certainly no organization nor professional group so richly deserves good relations with the public it serves, but deserving a good thing does not necessarily give us the "know-how" to get it.

Therefore, first, the American Medical Association must employ more than a mere "secretary" to the Council on Public Relations. An expert in that field, one whose ability is proved by his previous successes must be employed.

Second, the officers and trustees of the American Medical Association, having employed such an expert, must recognize that public relations is not an art which can be practiced by the specialist in public relations separately and apart from the organization he serves. It is not a department or a bureau that can be set up apart from the other departments, agencies, bureaus, officers, members, and employes of the Americal Medical Association, but rather a project that cuts through all and establishes a basic philosophy for the actions of each—a philosophy that interprets every word and every action in terms of its ultimate effect upon the public that American medicine serves. Public relations is not mere press-agentry. It is not a wordy veneering job applied by a special kind of magic called publicity. It is not the construction of an attractive fence around an organization, surrounding and concealing everything, but touching nothing. *It is rather the preparation of the organization for public inspection, and, then, the tearing down of fences that prevent easy public appraisal, understanding, and approval.*

The public relations expert must, of logical necessity, divide his work into the following steps: First, he must analyze the public to learn what it thinks of his client—in this case, organized medicine. Second, he must analyze his client to determine what actions and policies have resulted in the creation of adverse public sentiment and brought about poor public relations. Having made this double analysis, his third step must be to modify organized medicine and its representatives, in order to change his client's appearance, actions, and words, so that organized medicine may be acceptable to the public and able to appear well in the searching light of publicity.

The modification of the client is not a veneering job, but involves the imposition of actual changes. It is the job of the public relations counsel to convince his client that every action must be taken, not for the benefit of organized medicine but—with enlightened selfishness—for the benefit of the public which medicine serves. It is the delicate and often painful task of the public relations counsel to change the personality, if not the basic philosophy, of his client. When this has been done—*and only when it has been done*—is the client ready for the final step, the approach to the public and the employment of the entire publicity family—press, radio, rostrum, special events, pictures, posters, et cetera—for the presentation of his revised client to the public. That is public relations, properly so called.

The basic philosophy of medicine will need to undergo no changes, because it always has been committed to the improvement of the quality of medical care and to its universal distribution. Medicine does interpret every action in terms of its ultimate benefit to the public health and the individual patient. But the officers and official personnel who represent organized medicine to the public will need to submit themselves to the treatment indicated by whatever diagnosis is established by a competent public relations counsel, if the intent of the House of Delegates is to be carried out to a successful conclusion.

The desire of the House of Delegates to achieve good relations with the public will depend, therefore, upon four factors: first, the understanding of the nature of public relations by the membership of the Council on Public Relations; second, upon the caliber of the public relations counsel employed; third, upon the co-operation this expert is given by the Council on Public Relations and the Board of Trustees; and fourth, upon the willingness of organized medicine generally and the American Medical Association, particularly, to submit themselves to the kind of treatment that is indicated.

(This editorial was prepared, at the request of the Editor of THE JOURNAL, by Mr. Rollen W. Waterson, executive secretary of the Lake County Medical Society, where organized medicine is earning good public relations through a practical application of the ideas outlined above. Mr. Waterson was engaged in public relations work before his association with the Lake County Medical Society.—*Editor's Note.*)

AGAIN THE COUNTRY DOCTOR

Of late years the lay press has come to recognize one of the greatest institutions of American Medicine, the "Country Doctor," giving him the full mead of credit for his achievements. Allan Roy Dafoe, Doctor Dafoe, was one of this type of physicians, located in a sparsely settled area in the northern Ontario woods. He covered a large territory, presumably at times over roads not too well kept and all too often covered with the heavy snows that are so common in that section of Canada. He was just another "country doctor," ministering to his patients as such physicians do.

But some nine years ago there came an event in his life that in a short time made his name known to the reading public throughout the world, the advent of the Dionne quintuplets. The city physician with his parturient mother in a lying-in hospital, with every modern equipment at his immediate command, with consultation available in a matter of minutes would have found himself in more than a predicament — at least he would have been nonplussed for the moment. Allan Dafoe, usually described as a man of small stature — sometimes referred to as "the little doctor" — did not have hospital facilities at his hand; he did not have time to call for additional help; he faced a situation such as no other physician ever had faced, and he had to do something about it immediately, which he proceeded to do and did it well.

Doctor Dafoe recently has been described as "a fine example of preparedness and ability to respond to any requirement." So when he was called to the Dionne home it is but natural to suppose that he expected "just another O.B." He met the emergency, just as country doctors meet all emergencies, but this, of course, was a new one in his book. That he did his work well is evidenced by the fact that the mother and her five babies got along splendidly.

We have said that Doctor Dafoe had no time to call for assistance, but it was but a matter of hours before proffers of assistance came, via telephone and telegraph, via the mails, and via personal visitations on the part of other physicians; in fact, so much aid was offered that the poor man was put to it to decide what aid he needed and just which proffers might best be accepted.

The story of the future development of the "Quints" is well known to all, the establishment of a little hospital for their care, their taking over by the Ontario officials, the avoidance of commercial blandishments of all sorts — the main job being to see that these five little girls got what they most needed. And in the doing of all this Allan Dafoe was the chief, the general manager if you please. He carried on until a short time ago, when he resigned his official position as medical director to the most famous babes of modern times.

There is much that can be learned from the experiences of this man, chief of which is the fact that the American country doctor is an exceedingly well-equipped man. Without frequent consultations with other doctors, without the benefit of modern laboratory facilities at immediate hand, this gentry carries on — does the innumerable things that come up every day in his practice, most of them done as a matter of routine. It is when some great emergency comes along that he gets some slight degree of recognition; all too often such recognition never comes. Unlike his city brethren, he does not write "orders" on a hospital chart; he does not phone the nurse in charge to do this or that; when "orders" are to be given and carried out, it is the country doctor who gives the orders to himself and carries them out.

The name of Allan Roy Dafoe, M.D., will be recorded in future history as one who did the impossible; the recording of even this will be spectacular for generations to come — and who shall deny him such an honor? Yet, to our mind, Doctor Dafoe's greatest achievement comes in the publicizing of the country doctor — the man who does things.

UNDULANT FEVER

Some time ago THE JOURNAL carried a statement that it was our belief that undulant fever had not received the attention which its seriousness deserved, and that undulant fever was far more prevalent than supposed, especially the chronic form. And it might be said that too many physicians were emphatic in denying that a chronic form of this disease had a distinct entity. However, two Indiana "small town" physicians discredited this belief with reports of numerous cases of the chronic variety, the diagnosis of which had been made by accepted methods. Dr. Dan Urschel, of Mentone, and Dr. Neal Davis, of Lowell, had for years been studying this type of undulant fever, and had concluded that a chronic form was not at all uncommon.

With the death of one of America's most prominent automobile manufacturers, Edsel Ford, from this disease, a new impetus will be given to a more detailed study of the disease, both the acute and chronic types.

As was pointed out in THE JOURNAL some time ago, several other states had interested themselves in a study of this disease. Not long ago Minnesota, Kansas and Texas had a symposium on the subject at their annual meetings. The Texas discussion was especially notable in that their program was headed by speakers of national prominence, among them the head of the Department of Veterinary Medicine, of Ohio. In each of these meetings it was brought out that undulant fever was more common than supposed; that all too often it was not recognized; that with proper treatment the disease could be controlled in most instances; that a campaign for the eradication of this disease was vitally necessary and, if properly carried out, would bring good results.

The first thing to do is, of course, to rid dairy herds of infected animals; means are available by which this can be done, herds being tested for "abortion disease" and infected animals slaughtered. Pasteurization of *all* milk used for human consumption is a most important factor in the prevention of this disease, but it is well known that too many folk drink milk received directly from the producer sans sterilization in any form.

The symptomatology of undulant fever is clear cut; the laboratory tests are available to most Indiana physicians and are perfectly reliable, hence, it would seem that the stage is well set here in Indiana for a control of this dangerous disease. THE JOURNAL will from time to time print the further observations of these two young Hoosier physicians who are doing such excellent work in this field, together with observations of other writers over the country. We are proud of the fact that already several other medical publications have reprinted some of our articles on this subject.

Undulant fever is more common than generally supposed; it is fraught with the gravest of danger to its victims; it is readily recognized by those who have interested themselves in the matter and have had the proper laboratory tests made. *It can be controlled.*

Physicians are urged to give due attention to this important subject; to report to the Indiana State Board of Health all cases coming under their observation; and to continue to "preach the gospel" of sterilization of all milk used for human consumption. Again we say, *undulant fever can be controlled, if not completely eradicated.*

If you would be interested in having instructional courses during the annual session of the Indiana State Medical Association, to be held Tuesday and Wednesday, September 28 and 29, in Indianapolis, fill out and return the form that appears on page 365 of this issue of THE JOURNAL. Gordon W. Batman, M.D., chairman of the Local Arrangements Committee, hopes that enough interest will be shown through this preliminary poll to warrant arranging instructional courses as a part of the program for the annual meeting.

Editorial Notes

Physicians of San Francisco evidently are of the opinion that by the year 1946 the war will be over and that this nation will have beaten back to a somewhat normal path. They have invited — and the invitation has been accepted — the American Medical Association to hold their annual meeting in that city at that time.

We sometimes wonder if the busy physician takes time to tell inquiring patients just what socialized medicine means, just what it means to the individual family to *have* to call a certain physician who happens to be in charge of a particular panel. Of course, we are all busy, but a few moments for this purpose is time well spent — and the patient will take it as fact, coming from his doctor.

It is by no means too early to make your plans to attend the annual convention of the Indiana State Medical Association, at Indianapolis, in September. And it should be remembered that *right now* is the time to make your reservations. Indianapolis, as you know, is the seat of many war activities, which means that hotel accommodations are limited. Do not be disappointed if you are advised that you cannot have your favorite hotel or your favorite room—the Army comes first, you know.

We dropped in on one of the sessions of the House of Delegates of the American Medical Association, at the recent Chicago meeting, and were deeply impressed by the spirit of the House. Guided by the veteran speaker, Harrison H. Shoulders, of Nashville, that body finished the work before it with a minimum of delay — and they had a lot of work to do in the three-day session. Reports of the proceedings, in detail, will be found on the editorial page of this number of THE JOURNAL and in a special article by one of the Indiana delegates.

Dr. C. C. Crampton, of Delphi, continues to be greatly interested in the young folk he has ushered into the world. He follows them through their early years, is a regular attendant upon all high school activities, including basket ball, and is meticulous in such matters as remembering them at high school graduation. At such a time he sends each of the young folk a prescription, to which is attached a one dollar bill, the prescription carrying the advice to "spend it foolishly." We dare say that this is at least one prescription that is carried out to the letter.

The Indianapolis Isolation Hospital, used for the the purpose of combatting venereal disease and operated under the direction of Dr. Norman Beatty, seems to be meeting with popular favor. At a recent meeting of health and civic officials, together with representatives of the armed forces in that area, plans were made for the furtherance of this program.

Major George Dillinger, of French Lick, a member of the House of Delegates, came up from Georgia to attend the Chicago session of the American Medical Association. He was accompanied by Mrs. Dillinger, who attended the Auxiliary sessions. Doctor Dillinger finds "army life" much to his liking; states that he has plenty to occupy his time and finds the work most interesting.

Hammond physicians seem to be in the throes of an epidemic of "bag lifting" from their parked cars, no less than six physicians having had their bags ransacked and any form of narcotics therein extracted. The thieving gentry seem to know their narcotics well, since they are very "choosy" in the articles stolen. Physicians should be very careful not to leave narcotics in places where they may easily be stolen, and also should remember that all such thefts should be reported immediately to the local police, as well as to the Federal Narcotic Division, in Indianapolis.

While at the Chicago convention, the editor of a "down East" state medical journal remarked that he liked the editorial comments in THE JOURNAL. We replied that these notes were just bits of neighborhood gossip, such as we were wont to read in the country weeklies down in Wild Cat. Then, too, our aim is to comment on matters of current interest to members of the profession. The late Doctor Bulson used "editorial notes," 'way back when he was editor of the old *Fort Wayne Medical Journal* and continued that feature when he took over the present magazine, which he edited for twenty-five years.

Doctor Philip H. Kreuscher, well known to Hoosier physicians because of his outstanding work in industrial surgery, died at his Chicago home recently at the age of fifty-nine. He was a past president of the Illinois State Medical Society and had served a long time in the surgical department of Northwestern and Loyola medical schools. For some years past he had headed the surgical department of the Carnegie-Illinois Steel Company, whose main plant is at Gary. Dr. Kreuscher gave liberally of his time in addressing medical groups, having been a frequent visitor to various Indiana county medical societies.

The LaPorte County Medical Society has joined the long list of medical groups that are advising their patients, via *paid* newspaper advertisements, that their members are put to it to care for the ailing population of that county. A recent ad. says, "Help Your Doctor! Be considerate of your doctor; do not be impatient while waiting for your doctor; remember he is called upon to do a lot of extra work these days. He'll get there as soon as he can, but he cannot do the impossible. So be just as considerate of him as you expect him to be of you." We predict that before this war is over folk will have learned to "take their turn" in the matter of medical attention.

A new building on the University of Michigan campus was recently opened, to be known as the School for Public Health. One of the chief problems to be studied there is that of infantile paralysis, according to the announcement of The National Foundation for Infantile Paralysis. One unit in the new building will be devoted to work in virus disease, with infantile paralysis the chief theme. Encephalitis is another disease that will be thoroughly studied in this new school. The Foundation has made a three-year grant for this purpose, in the sum of $120,000.00, making a total of $230,000.00 granted the University of Michigan by the Foundation since 1940.

Dr. T. E. Ward, formerly of Williamsport and now located in Houston, Texas, was the victim of a holdup bandit recently. The man came to the home of the physician, late at night, stating that a member of his family was very ill and that he would be willing to pay a double fee for the call. On reaching the address, the doctor found the man at the curb, gun in hand, and was robbed of his cash, watch, keys, narcotics, et cetera. Physicians receiving late night calls from strangers should be careful to check on the call before starting out. Crime of all sorts is on the increase, as is always the case in time of war, and unusual precautions are advised.

A lot of this post-war talk would be quite amusing, were it not so serious. Just why so many would-be savants feel called upon to cite just what will take place after all this war business has been finished is quite beyond our ken. A lot of this prattle is harmful, in that incautious readers "swallow it whole," then proceed to discourse on their latest information to all who will listen. It is just as well to think about what may come to pass in post-war times, but we do not advise any special planning. We have lived in this old world a long time and thought we knew quite a bit about what was going on, but in these days we are moving so fast that it becomes quite a chore to keep up, to say nothing of trying to head the procession.

Our Victory Garden is now paying dividends, despite the untoward weather we all have been having for some weeks past. Growth of some of the vegetables has been retarded, while a few seem to thrive on a lot of moisture. The garden pests have not appeared in any great numbers, save for an over-abundance of mosquitoes which, by the way, are unusually large this year. Our advice is to keep everlastingly at it, and come next Fall your storage shelves will assure you of "good eats" for months to come.

With home canning in vogue in practically every home in Indiana it would be well to advise your patients of the dangers of such serious diseases as botulism, et cetera. With all the worth-while information being published on the subject of home canning, and with a proper equipment for this process, there is little occasion for illness due to home canned foods. Processing equipment is scarce, but a number of Indiana sheet metal shops are putting out such equipment at a reasonable cost, which is entirely practical.

The *Cayuga* (Indiana) *Herald* in a very well-written editorial, "We Must Conserve The Doctors, Too," concludes the timely article with this little homily on patent medicines:

> "Patent medicines — well we don't blame the druggist for selling them; they make wonderful profits. In times when the doctors aren't busy, we suspect they don't mind them for sooner or later they make them business. But if you want to get well a good glass of water will do more good and the kitchen shelves contain all the home remedies the layman should try. Bottled nostrums are either harmless or dangerous. Whichever they are, they do no good."

The Indiana University Medical Center wisely has decided to continue their research divisions and, while manpower may be a bit short, this work is being carried on as usual. The record of this department is unusually worthy, many contributions having been made to medicine through such activities. Just now the research department is working on a "bowel sterilization" program, via the use of one of the sulfa derivatives, and it is announced that the success presently attained is such as to lead to the belief that a much-desired degree of such sterilization has been reached. This research division is quite too modest, in our opinion, as is true of most such departments. While it is true that pronouncements are not made until sufficient case histories have been compiled to make a proper showing, we believe that such information should be more widely disseminated, particularly through the lay press. Let the people of Indiana know just how valuable their medical center is.

Train travel in war times, if the traveler is going any great distance, is to be discouraged save for really necessary reasons. Due to troop movements much of the equipment formerly used for civilian passengers is now being used for troop movements. And, as is eminently proper, troops have a complete right of way, both as to train accommodations and in the dining cars. If one *must* travel long distances, the journey should be planned a long time in advance and Pullman reservations, going and returning, should be in one's possession ere he leaves home. Never in the history of American railroading have our lines been so sorely taxed; every piece of available equipment is now in service, with little or no new equipment being made. Better stay home if travel by train is not really necessary.

Dr. W. T. Lawson, of Danville, known to Hoosier medicine for many things, but chiefly as a doctor who has served as secretary of his local medical society for more than sixty years, writes THE JOURNAL, asking if we are interested in "relics," enclosing some old newspaper clippings. One has to do with an aboriginal custom of drying the placenta and in later years giving it to children as a medicine. The news comment goes on to say that some Boston physicians had experimented with this and had found dried placental tissue most efficacious in the prevention of measles. Another clipping was from the columns of the late Arthur Brisbane, commenting on the slaying of two physicians, one because he had refused to make a night call, the other because of a delay in answering a call—both patients having died in the meantime. What a wealth of medical lore is stored up in the active mind of Doctor Lawson, who was born in 1849 and who graduated in medicine in 1878!

On several occasions we have commented on the activities of certain of the throw-away medical publications in the matter of solicitation of opinions from physicians, these opinions, of course, to be used in the furthering of advertising programs. With all the publicity that has been given such matters and with the memory that we still hear that *twenty thousand doctors say* that a certain brand of cigarettes does this or that, it seems that the sucker list among physicians remains too large. The latest coming to our attention is a three-way request for an opinion regarding a vegetable shortening, physicians being asked their opinions on this article. If *every* physician would consign such inquiries to his waste basket — *as he should do* — there would be an end to such things. In the first place, physicians should not be called upon to boost the prestige of any throw-away publication or to help them in an advertising program; if they want to be of service to medical journalism, they should lend that service to their own magazine.

An unusual incident, rather a series of such, has recently occurred in Gary and Hammond. A man, representing himself as a physician, calls home and tells the mother to give Johnny or Mary a two-quart enema immediately upon the return of the child from school. Rollen Waterson, executive secretary of the Lake County Medical Society, together with the police chiefs of the two cities mentioned, are making every effort to locate the mysterious voice which gives such orders. And, it is said, many Johnnies and Marys have been given unnecessary enemas because of the hoax. What next shall we have to guard against?

Americans are becoming "blood donor" conscious, what with so much being printed about the various blood bank programs throughout the nation and the various activities of many of our medical societies. Not long ago it was a problem to find blood donors, particularly those having blood of an unusual type, such as persons having recovered from certain diseases. Nowadays, a plea published in a local paper usually brings many responses, and the proper donor readily is found. The Lake County Medical Society recently advertised for donors who had recovered from Streptococcus viridans infection, and almost one hundred persons immediately responded. Of course, all these were not of the type sought, but at least four were deemed potential donors and a check on their hospital records was made at once. In another case the printer and the proofreader became interested in a story to be used in a local paper and recalled that someone they knew had had the disease mentioned in the plea. Contact was made and the donor found before the paper reached the reading public.

In the May number of the *Monthly Bulletin of the Indiana State Board of Health*, Dr. Thurman B. Rice expresses great concern over a new duty that has been assigned to the Board, via legislation enacted at the recent general assembly, having to do with the inspection of nursing homes. Much of the work in these inspections necessarily will devolve upon the engineering department of the board. Normally, the Board has some twenty-four engineers — now they have four, due to wartime conditions. And these four engineers have other *mighty important* routine duties, such as water and sewage inspections, tourist and trailer camp inspections, housing and plumbing code inspections and the like. They already have an overload, and to take these four men from their present assignment and transfer them to nursing home inspections is fraught with the gravest of danger. Dr. Rice is presently working on a plan whereby the aid of the Indiana Federation of Women's Clubs may be able to offer invaluable assistance in these nursing home inspections. We trust that this plan will work out and that the vitally essential duties of board engineers be not disturbed.

President's Page

MEDICAL FURLOUGH

What is a vacation? A vacation is a period for rest and relaxation.

It occurs to me that if a vacation was ever indicated for physicians, this is one time when a short break in their heavy routine is important. When one considers the fact that most of the practice is being carried on by men who have passed their fiftieth year of life, and many of the younger group who are doing practice today are physically disqualified for military service, is not this group entitled to at least a ten-day or two weeks' leave of absence from their tasks? Their practice will be even heavier in the future than during the past year—not lighter; therefore, physicians should arrange their affairs so that they will not have to be placed involuntarily on detached service, but rather take a voluntary furlough.

Many of you ask the question, "What type of a vacation can I take in ten days or two weeks?" Did you ever try taking a vacation at home, or just let it be known that you were out of practice for the length of time you wished to rest? During ten days or two weeks vacation at home you may have an opportunity to learn to know your family; they, perhaps, would be glad to visit with you for that length of time without interruption. You might also discover that your family has a Victory Garden. This would give you an opportunity to take part in producing some of your sustenance. If you like to read you may have a chance to catch up in the reading of some of the books you have long wanted to digest. After two or three days you will be able to sleep late in the morning, if you desire, go to bed early or get up early and enjoy the morning glory. In other words, have you ever tried taking a vacation at home? Personally, I was forced to take a three-month vacation at home last year, and finally when it was over and it was decided that I could go back to my practice, I found that by this time I had learned how to relax. I read many books that I had wanted to read but which I had not previously found time to do; I wrote one medical paper, period. And that was all. The only medical journals that I read thoroughly during the three months were THE JOURNAL of the American Medical Association and THE JOURNAL of the Indiana State Medical Association. Read them carefully and you will keep abreast with medical affairs.

What I have written may sound like childish nonsense, but, nevertheless, using a military term, take a "furlough" of ten days or two weeks and see how refreshed you feel upon your return to work. I do not think that the older men in the profession who are serving the home front will be criticized by any straight thinker for taking such a furlough.

This July Fourth should mean to us that we are fighting again for our independence and for the independence of the world. Permit me to quote from John Adams who, while lying on his death bed, heard the noise of the bells and cannon, asked the occasion for it, and when told that it was Independence Day, said: "It is my living sentiment and, by the blessing of God, shall be my dying sentiment—Independence now and Independence forever!"

J. H. McCarty

A.M.A. DELEGATES CREATE PUBLIC RELATIONS COUNCIL AT CHICAGO MEETING, JUNE 7-9

HOMER G. HAMER, M.D.*
INDIANAPOLIS

As there was no scientific session, the 1943 session of the American Medical Association at Chicago, June 7-9, consisted only of the meeting of the House of Delegates. There was an attendance of 171 delegates, only those representing Alaska, the Philippines, the Panama Canal Zone and Puerto Rico being absent.

The session was honored by a visit from the secretary of the Canadian Medical Association who brought greetings from our neighbors to the North and from Major General Norman Kirk, surgeon general of the United States Army; Brigadier General David N. W. Grant, air surgeon; and Mr. Morris Morris, president of the American Bar Association.

WIDE-SPREAD SENTIMENT FOR COUNCIL

The interest of the meeting centered in the movement to create a full-time public relations council. This developed from a strong sentiment on the part of the delegates that the American Medical Association should be represented at Washington, D.C., by an authorized spokesman and public relations representative. This sentiment was manifested by the introduction of several (six) resolutions from various parts of the United States, bearing upon this need. The culmination of these efforts resulted in the adoption of a resolution directing the Board of Trustees to form at once a Council on Public Relations and Medical Service, to be composed of six members from over the United States, the president of the American Medical Association, the immediate past president, the secretary, and a member of the Board of Trustees.

Immediately after the meeting of the House of Delegates the Board of Trustees announced the appointment of the following six members of the Council:

Louis Bauer, M.D., Hempstead, New York; Waller S. Leathers, M.D., Nashville, Tennessee; James R. McVay, M.D., Kansas City, Missouri; Edward J. McCormick, M.D., Toledo, Ohio; Alfred W. Adson, M.D., Rochester, Minnesota; and John H. Fitzgibbon, M.D., Portland, Oregon.

These, together with General Fred Rankin, past president; Dr. James E. Paullin, president; Dr. Roger Lee, chairman of the Board of Trustees, and Dr. Olin West, secretary, will compose the council whose duty it will be to name the council secretary. The Bureau of Legal Medicine and Legislation, the Bureau of Medical Economics, and the Public Relations Committee will be integrated into that of the newly-created council. Next year the six elective members are to be named by the House of Delegates from a list of eighteen doctors nominated by the Board of Trustees.

OTHER BUSINESS OF HOUSE

Much other business was transacted by the House of Delegates, outstanding accomplishments being:

(1) Statement of policy in relation to obstetric and pediatric care of servicemen's wives and children.

(2) Approval of Red Cross First Aid Manual.

(3) Principles to be followed in regard to radiological and pathological services rendered under non-profit hospitalization plans.

(4) Essentials of acceptable schools for clinical laboratory technicians and for physical therapy technicians were approved.

(5) Teaching of biology in high schools was approved.

(6) A program of postgraduate work for men in the armed forces and civilian doctors was approved.

(7) Reapportionment of delegates announced. Connecticut, New York and Ohio each gained one delegate, while the Carolinas and Kentucky lost one each. Indiana maintained its four delegates.

(8) Increase in A.M.A. membership announced by Dr. Olin West, secretary, showing 122,741 members on April 1, 1943, an increase of 2,040 over the April 1, 1941, membership.

PRESIDENT PAULLIN GIVES WAR FIGURES

In his address, "Planning of Medical Service for Present Needs and Future Requirements," Dr. James E. Paullin, president of the American Medical Association, stated that during 1942 approximately forty-two thousand physicians were in the armed services, and that during 1943 approximately eleven thousand additional physicians will be required, representing about all that can safely be spared from civil practice. He stated that according to the quota system previously established, this number must come from thirty-four states and that only fifteen states must yet supply more than one hundred physicians each.

"This does not mean that recruitment will be discontinued from states without quotas for 1943. Certain large cities in these states have a physician population ratio greater than the standard accepted. These cities will be called on either to furnish physicians for communities within that state which are in need of doctors or to declare their younger men available for military duty.

* Delegate to the American Medical Association.

"In regard to relocation of physicians in private practice, for the period ended March 31, 1943, thirty-three states reported to the Procurement and Assignment Agency 692 relocations. During 1942 and the first quarter of 1943, 866 were relocated. Now the need is for approximately three hundred additional physicians to supply needs in 198 areas."

NEW OFFICERS

Dr. Herman L. Kretschmer, of Chicago, who has served for several years as treasurer of the American Medical Association, and has many friends in Indiana, was elected president-elect by unanimous vote. Dr. Ernest E. Irons, of Chicago, and Dr. William F. Braasch, of Rochester, Minnesota, were re-elected to the Board of Trustees. Dr. E. P. Joslin, of Boston, received the Distinguished Service Award.

INDIANA DELEGATES ACTIVE

Indiana was represented by the four regular delegates—all of whom were present and took part in the deliberations. They were supported by the presence of Dr. Carl H. McCaskey, president; Dr. Cleon A. Nafe, chairman of the Executive Committee of the Indiana State Medical Association; Mr. Thomas A. Hendricks, executive secretary; Dr. A. M. Mitchell, alternate delegate; Dr. E. M. Shanklin, editor of THE JOURNAL; and Rollen Waterson, executive secretary of the Lake County Medical Society. Dr. Don Cameron was honored by being appointed to serve on the Reference Committee on Hygiene and Public Health.

Commendation of Dr. Roscoe L. Sensenich, of South Bend, a member of the Board of Trustees, and Dr. Irons for their work in preparation of the report of the Board of Trustees was voted by the House.

Dr. Sensenich also presented a supplemental report of the Board of Trustees, containing the proceedings of the joint committee meeting with the National Hospital Association in regard to radiological and pathological services.

Dr. Shanklin, editor of THE JOURNAL, presented a resolution at a meeting of state journal editors and managing editors, recommending that the state journals have a larger representation on the Cooperative Advertising Bureau Committee and that a more aggresive campaign be instituted upon behalf of the state journals. This resolution was seconded by Dr. Stanley Weld, editor of *The Connecticut State Medical Journal*, and passed by the meeting for presentation to the Board of Trustees.

The Council on Industrial Health, together with the Council on Physical Therapy of the American Medical Association, adopted the suggestion of the Indiana Committee on Industrial Health that industrial rehabilitation is a medical problem and should be a definite part of any post-war medical plan, and passed the recommendation on to the Board of Trustees.

DR. CROCKETT PRESENTS INDIANA STATEMENT

Great satisfaction was felt over the adoption of the resolution creating the Council on Public Relations and Medical Service, as this was the feature of the statement submitted by Dr. F. S. Crockett upon behalf of the Indiana delegation. This statement follows:

"The Council of the Indiana State Medical Association directs its delegates to present the following communication to the House of Delegates of the A.M.A., calling attention to the serious situation confronting the medical profession, and suggesting remedies. Evidences of this situation are found not alone in Indiana but are mainfest in nearly all sections of the country.

"Throughout the rank and file of the profession there are many who feel that this House of Delegates has failed in large measure to reflect truly the wishes and thinking of the profession, nor have they been sparing in their comments in reference to the trustees and other executives of this association.

"Causes underlying this feeling are many. The past decade has witnessed a gradual encroachment of government in the field of medical practice, which our leadership has been unable to stem. Witness the loss of the Supreme Court decision, the report of the Pepper Committee, and the criticism of a powerful section of the press, to mention only a few.

"In the minds of many who are not actively connected with the conduct of this association, we have been and are continuing to be defeated in our efforts to preserve our way of life. As these defeats continue, the demand for new leadership will increase.

"In the past this House and the Board of Trustees have upon occasion shown vision and leadership of a high order, such as its adoption of principles for medical care in 1939 and the Military Preparedness program at the New York meeting. To meet the rising tide of public criticism, some way should be provided to give the public a voice in the deliberation of this House. That voice might be that of some individual of national standing whose wise counsel could share in molding the future of medicine in harmony with sound public policy. Whereas the Board of Trustees is an executive, not a policy-making body, the interpretation of policy, which is a function of the board, is influenced profoundly by the liberal or conservative thinking of its members. This phenomenon has been observed repeatedly in the past whenever new members are elected. There are many duties of the board which are solely the concern of the association, but there are occasions when a voice reflecting the lay public mind in interpreting policy would be extremely valuable.

"Some forty thousand of our most active members are temporarily in the armed forces. The hasty mobilization of such members has created many situations needing correction, which the usual military channels seem inadequate to solve. These officers are members of this association who expect to return to civilian practice. They properly look to us for sympathetic understanding.

"It is proposed that a military morale unit be created by this association with the consent and approval of the Office of the Surgeon General of each service. This unit should be headed by some nationally-known physician who should have the confidence of the men in service and who could speak for the A.M.A. He should have a staff of capable assistants, visit military medical establishments at home and abroad, and be able to talk to any medical officer free from military restraint. All complaints should be analyzed carefully and placed before the appropriate authority with suggestions for correction.

"The Bureau of Medical Economics has done a fine job. It should now be made the Bureau of Medical Care. It should include the ablest economist obtainable, who

should be able to give the public, in their language, sound information on medical care problems.

"The problem of medical care requires attention *now*. The plan should be something that will enlist the active interest and participation of all citizens.

"The plan endorsed by this House in 1938 at San Francisco 'proposed community action covering a wide variety of health activities, prevention and education. It was a plan wherein each community would be encouraged to develop its own program suitable to the local needs. This plan, brought up to date to meet present conditions, can serve as a basis for a nation-wide medical program.

"The Bureau of Medical Care should establish a council or committee to rate communities according to their achievements in the preventive medical field, just as the Council on Medical Education and Hospitals rates medical schools and hospitals for intern training. Communities outstanding in their preventive activities and results might receive some sort of award like the Army and Navy 'E's', given for excellence in production of military supplies. The ceremonies incident to giving these awards might be the background for a civic celebration that would make the public appreciate the splendid job being done by the profession under the aggressive leadership of this association and the state medical societies in co-operation with the local profession.

"Another important factor in improving our standing with our federal government would be the maintenance in Washington of an office for the convenience and information of Congress—manned by someone capable of representing the best in medicine. Proposed legislation affecting the interest of the medical profession directly and indirectly is being introduced into Congress with increasing frequency, and executive bureaus, commissions and other instrumentalities of the federal government issue rulings, many of which may affect the practice of medicine.

"In line with the facts and suggestions just enumerated, we submit to this House of Delegates the following resolutions:

"RESOLVED, That some provision be made whereby the lay public should have a voice in the deliberations of this House and in the Board of Trustees, wherever the public interest is involved,

"RESOLVED, That a military morale unit be created with the consent and approval of the Office of the Surgeon General of each service, to visit military medical establishments at home and abroad to help in solving difficulties experienced by our members in service,

"RESOLVED, That a Bureau of Medical Care be established to encourage communities in all the states to co-operate with their state and local medical societies in developing health movements covering the field of preventive, corrective and educational activities, Therefore be it

"RESOLVED, That the Bureau of Legal Medicine and Legislation be enlarged to enable the maintenance in Washington of someone capable of representing this association, who will be available at all times for the purpose of supplying information and developing better relations with Congress and other branches of our federal government."

MEDICAL SERVICES FOR FAMILIES OF SERVICE MEN—FEE SCHEDULE PREPARED BY THE ADVISORY COMMITTEE TO THE BUREAU OF MATERNAL AND CHILD-HEALTH OF THE INDIANA STATE BOARD OF HEALTH

The following fee schedules have been adopted, subject to change, after study of the schedules set up in Michigan, Ohio, Illinois and Wisconsin. The committee wishes to go on record as stating that every effort has been made to set up over-all fees for the entire state, establishing a reasonable balance for the fees in urban and rural areas. The fees are not intended as a reflection of those common in private practice. They are established only for the duration and for six months thereafter, and, as herein presented, they are tentative and may be altered by action of the committee as the need arises and new knowledge is acquired.

FEES FOR OBSTETRIC CARE

Complete Obstetric Care:

Complete medical services, including care during the prenatal period, labor and puerperium as well as care of complications, obstetric operations, postpartum care, care of the newborn infant, postpartum examination six weeks after delivery, blood test for syphilis, urinalyses and hemoglobin determinations, and other tests if needed _____ $45.00

For services less than above, the fees are as follows:

Prenatal Care:

For complete prenatal care, including complete physical examination and necessary tests at first visit and four subsequent routine visits _____ $10.00

If less than above, $2.00 per visit.

Labor and Delivery:

For complete care during labor, delivery and immediate puerperium _____ $30.00

For abortion or miscarriage before the seventh month of gestation _____ $15.00

Postpartum Care:

For care of the mother and newborn infant and a postpartum examination at the end of six weeks _____ $ 5.00

Obstetric Consultation:

Services of a qualified consultant may be requested. An approved list of consultants will be established, based upon rec-

ommendations of local medical societies and subject to the approval of the Indiana State Board of Health and the Advisory Committee to the Bureau of Maternal and Child-Health.

1. Simple bedside consultation ..... $ 5.00
2. Consultant services, including assistance at the time of an operative delivery $15.00
3. Consultant services involving major surgery, such as entrance into the abdominal cavity or Cesarean section $30.00

For services requiring travel in excess of ten miles from the consultant's place of residence, $5.00 may be allowed in addition to the above fees.

PEDIATRIC CARE

Pediatric care is for the present limited to care of the infant from six weeks until one year.

First visit	Home	$ 4.00
	Office or Hospital	3.00
Subsequent visits	Home	3.00
	Office	2.00

Provisions for payment will be limited to a maximum of $19.00 for two weeks' care, permitting a payment of $13.00 for the first week and $6.00 for the second week.

For additional care during any single illness, a new request for authorization must be made, stating the indications. Each new authorization will be for two weeks and payment will be limited to $6.00 per week.

Well-Child Supervision:

For routine medical supervision of the infant, including immunizations, and for visits at not less than four-week intervals, per visit ..... $ 1.00

Pediatric Surgery:

To include complete surgical care of the infant from six weeks to one year of age.

1. Minor surgery, including circumcision $10.00
2. Major surgery, including entrance into the thoracic or abdominal cavities, and surgical treatment of major congenital defects not otherwise provided for under services for crippled children $30.00

Pediatric Consultant Service:

To be provided by approved consultants qualified in the manner described under Obstetric Consultant Services.

1. Bedside consultation ..... $ 5.00
2. Consultant services involving minor surgery 10.00
3. Consultant services involving major surgery as described under Pediatric Care 30.00

SPECIAL CONSULTANT SERVICE

Fees for other consultants to be provided for on equitable basis.

ADDITIONAL SERVICES

In hospital where surgical assistance is not provided by an intern or resident staff, one medical assistant and one anesthetist may be provided—the fee for any single service ..... $ 5.00

Bedside Nursing:

Bedside nursing at the time of delivery in the home, or nursing care during a period of critical illness only, $5.00 per eight-hour day and 62½c per hour for additional time.

Ambulance Service:

When ambulance service is necessary and specifically requested by the family physician, it will be provided at the local prevailing rates.

Under provision of the Emergency Act of Congress of March 18, 1943, all services provided from funds made available must be rendered without additional cost to the patient or the family.

H. F. Nolting, M.D., *Chairman*
J. C. Carter, M.D.,
C. J. Rothschild, M. D.,
W. L. Portteus, M.D.,
K. T. Knode, M.D.,
John VanNuys, M.D.,
Foster Hudson, M.D.

(Also present, R. E. Jewett, M.D., director of the Bureau of Maternal and Child-Health, Indiana State Board of Health.)

WEIGHT REDUCER

"A lady recently wrote a Better Business Bureau that she had purchased and taken according to instructions a widely-advertised preparation for reducing. But, instead of losing weight, she *gained seven pounds.*

"The product she bought and took is fundamentally a candy. The instructions which accompanied the package told her to cut down on food and take exercise.

"Reducing preparations on the market today are divided into these groups:

1. Those containing potent drugs, which should be taken only under a physician's advice and guidance;
2. Those containing laxatives which may be habit-forming and likewise should be used only under medical supervision;
3. Those which are harmless food and candy preparations which do not reduce weight by themselves.

Creams and lotions will not reduce weight.

If you are over-weight, try cultivating a Victory garden this summer. It may do the trick."—*Indianapolis Better Business Bureau Bulletin.*

INSTRUCTIONAL COURSES AT ANNUAL SESSION OF THE INDIANA STATE MEDICAL ASSOCIATION

If among the members of the state association there is sufficient desire for instructional courses, the Committee on Convention Arrangements of the Indianapolis Medical Society for the state meeting will organize and present brief courses in basic subjects, these courses to be held on Tuesday and Wednesday, September 28 and 29, 1943.

The courses will be given by members of the Indianapolis Medical Society and the class periods will be arranged at an hour which will not interfere with other regularly scheduled meetings. Classes will begin about 8:30 A.M. and about 4:30 P.M. All classes will be held in the Claypool Hotel. Each class will be limited to fifteen. Illustration and demonstration will be largely employed, and a question and answer period will terminate each period.

A charge of one dollar per period or three dollars for the four periods will be made to cover special expenses incident to such a program. This must be paid in advance and no refunds can be made after September 10, 1943.

If you are interested in attending such courses, please check the courses in the following list that you wish to attend. From these lists the actual courses to be offered will be determined.

It is, therefore, *very important* that you check the following list immediately, if you are interested, fill in your name and the name of your local medical society and *mail the blank* to Gordon W. Batman, M.D., 723 Hume-Mansur Building, Indianapolis 4, Indiana, *at once*. This does not obligate you, but will give us some basis upon which to plan the course.

GORDON W. BATMAN, M.D., *Chairman*
RUSSELL SAGE, M.D.
MARLOW W. MANION, M.D.

The subjects we consider it possible to offer during the instructional periods at the state meeting of the Indiana State Medical Association are as follows: (Check not more than eight in which you might be interested—only four can actually be attended.)

Cut on the dotted line

1. Office examination of the heart ☐
2. The interpretation of the electrocardiogram ☐
3. The clinical examination of the thyroid patient ☐
4. The management of the diabetic ☐
5. The treatment of pneumonia ☐
6. The treatment of gonorrhea ☐
7. The recognition and treatment of common skin diseases ☐
8. Local treatment of the upper respiratory passages ☐
9. Differential diagnosis of lower abdominal pain ☐
10. Routine prenatal examination and care ☐
11. Laboratory tests possible in the office (Demonstrations) ☐
12. The application of plaster casts (Demonstrations) ☐
13. Uses and technique of adhesive taping of sprains and similar uses (Demonstrations) ☐
14. Treatment of Colles fractures—detailed (Demonstrations) ☐
15. Diagnosis of nucleus pulposus lesions or low back and extremity pain ☐
16. Neuropsychiatric aspects of every patient ☐
17. Infant feeding problems ☐
18. Immunization techniques and their status for children ☐
19. General management of prostatic hypertrophy ☐
20. The use of rectal analgesia in obstetrics ☐
21. Anesthetic agents; use, danger and application ☐
22. The early diagnosis of cancer of the breast and uterus ☐
23. The evaluation of x-ray and radium in therapy ☐
24. Recognition and treatment of tuberculosis ☐
25. The status of treatment of fractures about the hip ☐
26. Recognition and treatment of the anemias ☐
27. Medical treatment of the stomach and intestinal tract ☐
28. Diagnosis and conservative treatment of the common anorectal conditions ☐
29. The management of hypertensive states ☐

Name:.....

Medical Society.....

UNDER THE CAPITOL DOME

ORCHESTRA EFFECTIVE AS THERAPEUTIC AID FOR MENTAL PATIENTS

Officials of the Indiana Hospital for Insane Criminals report remarkable results from their experiment with an orchestra composed of inmates, an institutional group now in its ninth month and grown from a nucleus of twelve to a strength of twenty-nine participants. The use of music in hospitals for the insane as a therapeutic aid is now backed by a considerable literature. The reports have been uniformly encouraging and consistent, and since facilities for treatment in the Indiana Hospital for Insane Criminals are quite limited, the officials decided to take advantage of the possible help that music might offer.

The first problem was that of securing instruments. This was met through an appeal to the people of Michigan City, the site of the hospital, and a campaign was conducted by the *Michigan City News Dispatch*. The response was generous.

When the instruments were available, the officials invited the inmates to learn to play. Responses were variable and interesting. Some were suspicious of the motives back of the invitation; others were totally indifferent, while still others expressed doubt as to their ability to learn. But finally a dozen inmates agreed to try. From then on the orchestra grew, not only in number but in value.

A. F. Dowd, warden of the institution; Dr. P. R. Gallup, psychiatrist, and Terry Olsen, music instructor, who backed the plan, report that none of the inmates who agreed to try to learn to play musical instruments had had any previous experience. The work during the first few months was tedious. A blackboard was set up and the mechanics of music were explained.

The officials reported that most of the patients were not able at first to obtain a satisfactory release of tension; two serious fights broke out in the music room, but after six months of patient training an orchestra had actually been developed. The twenty-nine inmate-musicians had a repertoire of twenty-five numbers. Reaction of the inmates to their first "public" appearance was interesting. That appearance was before the members of the Board of Trustees on March twentieth, and patients who previously had refused to study music became eager to do so.

The three officials report, "They expressed their pride in various ways; some became more friendly with the personnel of the hospital; some began to show more interest in their personal appearance; and all of them exhibited an improvement in the ability to express themselves. They became less timid and were able to relate their everyday problems with more composure."

The kind of music which appealed most to the inmates also formed an interesting report. For the most part they preferred songs that were popular several years ago; they approved of medleys of three songs more than any other arrangement; and they liked the light classics. Explaining these preferences the officials pointed out that the older selections were associated with pleasant experiences out of the inmates' own past lives, while the production of a medley sustained their interest and gave them a sense of greater achievement. "Of course," they reported, "the desire for a medley of three pieces rather than some other number has deeper psychological connotations which are easily understood. The psychoanalytic school demonstrated long ago that the number three is symbolic of potency."

The reactions of several individual patients were reported. One patient, for example, who had been troublesome because of delusions of persecution, negativistic behavior and destructive actions, became objectively polite and sociable after four months' work. He shows promise of a violinist. A patient who had been unable to learn the alphabet became interested in the guitar, and his interest prodded him on to learn to play it, and he also reads music. Another patient who had been destructive now spends much time in practice and in caring for his violin. Still another, who had delusions of grandeur, is excessively proud to play fourth violin.

Results of the experiment with the orchestra at the institution have been so satisfactory that an additional program for the development of singing and dancing has now been undertaken.

Annual Convention

INDIANA STATE MEDICAL ASSOCIATION

INDIANAPOLIS

September 28, 29 and 30, 1943

Deaths

Edward J. Laval, M.D., of Evansville, died on June third. He was seventy-three years of age. He graduated from the Louisville Medical College in 1902.

* * *

Samuel T. Henderson, M.D., of Fort Wayne, died May third at the age of sixty-nine. He was a graduate of the Physio-Medical College of Indiana, Indianapolis, in 1896.

* * *

Ray A. Bowman, M.D., of Elkhart, died at his home on May thirtieth. He was forty-six years of age. He graduated from the Indiana University School of Medicine, Indianapolis, in 1925. Doctor Bowman served overseas during World War I. He was a member of the Elkhart County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Frank L. Thornburgh, M.D., of Middletown, died on June seventh. He was eighty-six years of age. He graduated from the Medical College of Ohio, Cincinnati, in 1878.

* * *

Walter T. Van Dament, M.D., of Bloomington, died on May nineteenth. He was fifty-six years of age. He graduated from the Indiana University School of Medicine, Indianapolis, in 1912. Doctor VanDament served overseas as a lieutenant in the Medical Corps during World War I. He was a member of the Monroe County Medical Society, the Indiana State Medical Association, and the American Medical Association.

ANTI-MALARIA BRIGADE

Staff Sergeant Emil J. Blacky, of the Public Relations Section, CPD, United States Marine Corps, has prepared the following article concerning malaria control in the tropics.—Editor's Note.

The Japs have withdrawn or have been conquered on some of the islands in the vast expanses of the South Pacific, but the disease-axis which makes a bastion out of these "tropical paradises" stubbornly hems in our jungle fighters. The battle with disease is incessant. There are no breathers between engagements, and the continuous, pitched battle against a numerically large foe cannot be decisively won, but must be held at bay.

Fighting side by side with the Marines in their unrelenting battle against the Japs is an unsung detachment whose weapons are chemicals, drugs, and sanitation. This unacclaimed, yet vitally important unit, is known as the "Skeeter Beaters" or Anti-Malaria Brigade.

Enemies of this ingenious disease-eradication force are numbered in the billions—large waves of mosquito marauders staging day and night infection attacks—which penetrated deep into our lines unopposed until organized malaria-control units began wiping them out by the millions. Now, these "Skeeter Beaters" are slowly conquering the greatest malaria problem since the building of the Panama Canal.

Two major types of strategy are employed—cure and prevention. Men contracting malaria, or suspected of having it, are given immediate tests and treatments. First signs of malaria are generally headaches, extreme fatigue, and fever or chills. Blood tests are often given to determine whether men showing symptoms are afflicted with this dread jungle disease.

Every known anti-malarial drug is used in treating the men, including atabrine which has proved successful in battle tests. Field treatment enables the men to continue in combat. Lingering cases of malaria are evacuated to battle-equipped base hospitals.

To carry out the strategy of prevention, the malaria unit wages an offensive war against the mosquitoes. Swamps and other breeding places are invaded and sprayed with a coating of oil. Millions of mosquitoes are killed in the larvae stage—before they have an opportunity to become carriers of the disease.

Every jungle fighter is also equipped with a mosquito net, a practical safeguard against the malaria-carrying enemy.

The battle against disease is not confined to the Marines. All of the fighting forces must meet and solve the problem. But because they are a swift, mobile force and thus can carry only essential equipment, the problem for them is more acute. They have met and conquered their human enemies against tremendous odds, and the malaria unit, fighting with them, is endowed with the same spirit. It, too, is meeting and beating the enemy—Malaria—on its own grounds.

Military News

Captain Robert Berke, of South Bend, is in the vicinity of Seattle, Washington, with a barrage balloon unit.

Former Kokomo physician, Captain Theodore J. Bruegge, is with a United States Army hospital in North Africa.

Senior Medical officer of a "Sea Bee" Battalion is the assignment of Lieutenant Commander Erwin Blackburn, formerly of South Bend, who is with the U. S. Navy and is stationed somewhere overseas. Commander Blackburn's address is Care of Fleet Post Office No. 8315, New York City.

Lieutenant Commander Wendell W. Ayres, formerly of Hartford City, will serve as medical officer for the Navy training unit at Wabash College, Crawfordsville. Prior to this he was stationed at a Navy submarine base in New London, Connecticut.

Captain James L. Bartle, of Knightstown, who entered the Army in June, 1942, and who has been stationed at Camp Campbell, Kentucky, has been selected to receive special training in anesthesiology at the Percy Jones General Hospital, Battle Creek, Michigan. He spent two days in Knightstown with his family before reporting to Battle Creek.

Former Richmond physician, Major Russell L. Malcolm, is now serving with an evacuation hospital at Camp Atterbury. He was formerly stationed with the Glider Corps at Alliance, Nebraska.

Captain Maurice Schulhof, of Muncie, has been transferred from the bombardier school at Victorville, California, to LaJunta, Colorado.

Captain James Ward, of Mishawaka, has been assigned to the surgical department of the hospital at Camp Butner, near Durham, North Carolina.

Lieutenant Henry Zimmer, of Mishawaka, is stationed at the Rome Air Depot, New York.

Lieutenant Gerald S. Young, of Muncie, has been transferred from the School of Aviation Medicine at Randolph Field, Texas, to the Cadet Examining Center, Kelly Field, San Antonio, Texas.

Former Indianapolis physician, Captain George M. Brother, is now serving at the station hospital at Maxwell Field, Alabama.

Dr. Richard H. Callahan, of East Chicago, is now a captain and is stationed at the La Garde General Hospital in New Orleans, Louisiana. He entered the service in January, 1943.

Captain William H. Clark, of South Bend, is serving at the Station Hospital, Army Air Base, Lincoln, Nebraska.

Since entering the service Captain James U. Dodds, of Hartford City, has attended the Gas Casualty School at Edgewood Arsenal, Maryland, the Officers' Class at Carlisle Barracks, Pennsylvania, and is now stationed at Fort Bliss, Texas.

Major J. H. Clevenger, of Muncie, has completed a course in thoracic surgery at St. Louis, Missouri, and has been transferred to Camp Bowie, Texas.

Lieutenant Eugene Weiss, of South Bend, is doing physical examinations at Fort Knox, Kentucky.

Captain Donald A. Covalt, of Muncie, reported that he has been at Miami Beach, Florida, a little over a year, and that it seemed as if he had done everything since entering service. He is now officer in charge of the Convalescent Training Program for the beach and says that this is undoubtedly the most interesting work he has had in the Army.

A press wire story from Algiers reported that Lieutenant Herbert S. Dieckman, former Evansville physician, was the Army surgeon who cared for the two war correspondents who were injured when a transport plane collided with another plane in which Colonel Elliott Roosevelt was riding. Colonel Roosevelt was shaken up but not injured sufficiently to require hospitalization.

We have been informed that Dr. Wilson Eikenberry and Dr. R. E. Barnett, former Peru physicians, recently arrived at an African port. They are in the Army Air Force, and although they trained separately, they met in Philadelphia and are reported to have embarked together.

We find Lieutenant Kenneth Fisher, of South Bend, stationed at the Fort Ray General Hospital, Sitka, Alaska.

Lieutenant LuVern Garling, of Muncie, is now serving at the O'Reilly General Hospital, Springfield, Missouri.

Captain Charles L. George, former Indianapolis physician, recently spent a few days visiting his parents in Indianapolis. He has just completed a course in plastic surgery at the University of Pennsylvania and was enroute to a new station.

We have been informed that Captain Leo L. Grzesk, of Mishawaka, is at the station hospital at Fort Jackson, South Carolina.

Captain O. A. Hall, of Muncie, is serving at the Station Hospital at Fort Benning, Georgia.

Captain Richard Holdeman, of South Bend, is teaching First Aid in addition to his other duties at Camp Chaffee, Arkansas.

Captain James W. Griffith, formerly of Sheridan, has enrolled in a four weeks' course in neurology, at Atlanta, Georgia.

Captain Bennett Kraft, of Indianapolis, is now serving overseas. He can be reached through A.P.O. 3792, c/o Postmaster, New York City.

Major N. C. Isler, formerly of Jeffersonville, is now with the station hospital at Savotelle (West Los Angeles area), California.

Former Indianapolis physician, Dr. Walter R. Hickman, has been promoted to a captain. He is on the examining board of the U. S. armed forces, at Cincinnati, Ohio.

Captain John Hurley, of Daleville, is now serving at Fort Bliss, Texas. We quote from a letter written by him: "Since my induction, July 14, 1942, I have been assigned to a horse-drawn Field Artillery Battalion as battalion surgeon. As such my duties are exclusively with field forces. There is the usual preventive medicine, mess, et cetera, with which everyone is familiar." He says that the climate there is the nicest he has ever known, but he is waiting for the whistle to blow so he can come home.

The above was the first contingent of nurses to report at Camp Bowie for duty with General Hospital No. 32. Ten have since been transferred from Camp Atterbury, and the remaining ones are on duty at the station hospital at Camp Atterbury and at the Billings General Hospital at Fort Harrison; they will join the unit later.

Front row, left to right: Second Lieutenant Mildred Tumbas, Second Lieutenant Mary Faker, Second Lieutenant Juanita Hubble, Second Lieutenant Martha McClain, Second Lieutenant Patricia Hilliard, Second Lieutenant Marion Fry, Second Lieutenant Frances Eddy, Second Lieutenant Marcile Seneff, Second Lieutenant Alice Osborn, and First Lieutenant Aurelia Willers.

Back row, left to right: Second Lieutenant Hazel McClure, Second Lieutenant Wilma Carr, Second Lieutenant Pauline Tate, Second Lieutenant Mildred Teegarden, Second Lieutenant Valeria Marciniak, Second Lieutenant Adeline Joblonski, Second Lieutenant Corinne Voight, Second Lieutenant Violet Sabol, and Second Lieutenant Erma Hill.

Captain Joseph Larmore, of Muncie, is doing ear, nose and throat work at the Station Hospital at Camp Gruber, Oklahoma.

We find Lieutenant Joseph E. Lang, of South Bend, serving at the Station Hospital at Camp Gordon, Augusta, Georgia.

Captain Carl J. Langebahn recently visited at his home in South Bend. He is now stationed at Carlisle Barracks, Pennsylvania.

Radiologist at a hospital at Camp Breckenridge, Kentucky, is the assignment of Captain E. C. Murphy, former South Bend physician.

Lieutenant Raymond E. Nelson, of South Bend, is now stationed somewhere in North Africa.

Dr. E. E. Mason, of Evansville, has been advanced to the rank of lieutenant colonel in command of a medical battalion, now believed to be overseas. Colonel Mason was trained at Carlisle Barracks, Pennsylvania, and Camp Bowie, Texas, then was assigned to Camp Claiborne, Louisiana.

Former Lafayette physician and surgeon, Dr. Kenneth O. Neumann, has been promoted to a captain in the United States Medical Corps. Captain Neumann was stationed at Camp Campbell, Kentucky, but is at present taking a special course at the Mayo Clinic.

Who should drop into THE JOURNAL office the other day but Lieutenant Colonel Charles F. Thompson, of Indianapolis, who is chief of the surgical service of General Hospital No. 32, at Camp Bowie, Texas. Later Captain J. Neill Garber paid us a visit, and we have also been informed that Major Dennis Megenhardt is here for a few days' leave; incidentally, the latter came to get acquainted with a daughter who arrived at his home recently.

"The past year I've done enough surgery for a normal lifetime, and find the work very agreeable. Recently I've been made senior E. N. T. surgeon on the staff of a large Allied hospital—the only American on the staff. I'm now carried on the roster of the forces of two countries. It goes without saying that I'm very pleased to have a large service under my wing." The above information is quoted from a letter written by Lieutenant Martlin P. Smith, formerly of Muncie, who is now serving somewhere in Australia.

Lieutenant Commander William Miller, of South Bend, is in charge of the eye, ear, nose and throat work at a hospital in the Southwest Pacific area.

Lieutenant J. M. McIntyre, former Indianapolis physician, is now serving somewhere in one of the war zones overseas. He is with an evacuation hospital and can be reached through A.P.O. 668, c/o Postmaster, New York City.

Captain Ardis F. Melloh, of Indianapolis, recently graduated from the twenty-fifth officers' class at the Medical Reserve School, Carlisle Barracks, Pennsylvania.

Major Carl J. Rudolph, of South Bend, has completed a six weeks' training course at Miami Beach, Florida, and has been transferred to the Air Base Camp at Fresno, California.

Captain Harry Sandoz, of South Bend, was recently transferred from Camp Bowie, Texas, to Camp Claiborne, Louisiana.

Former South Bend physician, Dr. Louis Sandock, was recently promoted to a captain and is serving as the executive officer of the surgical office at Drew Field, Tampa, Florida.

Lieutenant Commander Keith Selby, of South Bend, is serving at the United States Naval Hospital at Great Lakes, Illinois.

We are grateful to Dr. Robert K. Webster, secretary of the Clay County Medical Society, for his report concerning the Clay County members serving in the armed forces. We quote:

"Due to the small size of the Clay County Medical Society only two of our members are in the service. John M. Palm, M.D., is a Major in the AAF in North Africa. John is a flight surgeon and a graduate of the school of aviation. He entered service May 1, 1941, with the rank of first lieutenant, and was assigned to the Armored Division at Fort Knox, Kentucky. Later he was transferred to Randolph Field until sent abroad.

"O. L. Wood, M.D., entered service as a first lieutenant in April, 1941. He was sent to the Carlisle Barracks Field Service School and was assigned to Fort Oglethorpe, Georgia, where he was commanding officer of the Medical Training Battalion until March of this year. He has been transferred to a Headquarters Company at Camp McCain, Mississippi.

"This society misses both Dr. Palm and Dr. Wood more than we can say. Both are capable physicians and were very active in the profession and in civic affairs."

Information has reached us to the effect that Dr. Daniel D. Stiver, of South Bend, is now serving in Iran.

"I'm fine and enjoying my work as chief of the surgical service in our 200-bed dispensary; also have about 100 casualties from the Altantic Theatre," is an excerpt from a letter written by Lieutenant Commander Charles C. Terry, of South Bend, who is serving at Norfolk, Virginia.

After spending a year in the island jungles of the Southwest Pacific, Lieutenant William L. Green, of Indianapolis, has been granted a sick leave because of an ailment contracted while in the jungles; he was recently dismissed from the Treasure Island Naval Hospital at San Francisco. Although his base was not stationed in the actual combat zone, many of the wounded from Guadalcanal and the Solomons were cared for at the base. He said, "It was a great experience being with the Marines. They are a pretty rugged bunch." It was on the island where he was stationed that Eddie Rickenbacker and his crew landed following their miraculous rescue at sea. We are glad to have Doctor Green back with us and we hope that he will make a prompt recovery.

The Lafayette Home Hospital, of Lafayette, has been sending a NEWS BULLETIN to their staff members in the armed forces, a copy of which was submitted to THE JOURNAL. From it we glean the following information concerning former Lafayette physicians: Lieutenant Commander Russell A. Flack is at a hospital at Coco-Solo, Canal Zone; Major Ray G. Ikins recently paid his home town a visit—said he had been able to do some pheasant hunting in the South Dakota Hills; Major Bernard J. Harvey is in the Bermuda Islands; Lieutenant Lloyd Harris managed to drop in at his home recently and is making plans to take his family to Chicago; Captain George R. Donahue has an APO address, No. 859, care of Postmaster, New York, New York, but his whereabouts are not known; likewise Major Daniel H. McKinney, whose address is APO 3310, care of Postmaster, New York City; Lieutenant George W. Herrold is at Rosecrans Field, A.F.T.C., St. Joseph, Missouri; Captain Wayne T. Cox paid his family a visit, but is back at the station hospital at Camp Young, Indio, California; and Captain Thomas G. Graham, who has an APO address of 922, care Postmaster, San Francisco, is quite busy doing surgery, but spends some of his leisure time feeding a baby kangaroo with a bottle. It is indeed interesting to hear the names of all the places where our physicians are stationed and we like to share in their experiences, even the mothering of a kangaroo.

Captain Elmer S. Zweig, of Fort Wayne, is now stationed at Truax Field, Madison, Wisconsin.

The following letter might well be entitled "From one who knows":

"Having nothing better to do for the moment, I've decided to improve the shining hour by expending some ink and paper. The censors desire that I keep my whereabouts a secret, on account of they don't want the naughty Nips to come and get me. So instead of talking about myself, I'll tell you a story about Frank, whom the Nips almost got, as you will see [Frank being himself].

"One afternoon in December, a four-engine bomber winged its way past Tulagi toward the Japanese base of Munda. Aboard as a passenger, en route to Guadalcanal, was Frank—an S-2 officer [Squadron Staff Intelligence Officer]. He did not particularly relish the trip. Some people instinctively are warriors—and some aren't. Frank is of the latter category [Not true; he has twice been decorated].

"Shortly before reaching the New Georgia group on a western approach, several Zeros attacked the B-17, like a pack of wolves jumping a stag. One Zero in particular pressed persistent attacks. As is their custom, he made quartering attacks from in front and below. Tracers streaked across the nose of the B-17, and the two planes roared toward each other at a combined speed of 700 miles an hour. When at close range, 20 mm. explosive shells came lobbing toward the mighty flying fortress. Suddenly two explosions, in rapid succession, shivered the plane. Numbers three and four motors (on one side) were hit and afire. Efforts to feather the props failed, and the resulting vibration threatened to tear off the wings. The pilot shouted, 'Prepare to bail out.' The plane's interior became a bee-hive of activity. Crew-members whisked by each other in frantic haste, grabbing chutes and water-vests.

"Frank, our passenger—meek of manner, mild of voice and small of stature—didn't rate much attention from the busily engaged, husky combat-crew. Undetermined, and a little more than somewhat nonplussed by the events, Frank sat down on the can, near the waist-gun, and unhappily surveyed his surroundings. Finally, he apologetically addressed a gunner, 'Are there any more parachutes left?' 'Nope,' cheerfully replied the gunner, snapping the last buckle into place. Frank arose from his seat and disconsolately measured with his eyes the five thousand feet down to the water below.

"I examined Frank later. He had a broken rib. The wing stayed on, a water landing was made, and a successful rescue effected. And now, wherever Frank goes his parachute is sure to go.

"So you can tell ———, if he decides to come to visit me, to be sure and bring his parachute and portable fox-hole—they are necessities, not luxuries at 'Gawd-awful-canal.'"

News Notes

Announcement has been made of the marriage of Dr. Alexander Govorchin, of Munster, to Miss Helen Phillips, of Hammond. The couple will reside in Munster.

Dr. W. J. Marshall, formerly of Kokomo, reported that he is opening an office at 618 Landers Building, Springfield, Missouri, on July first. He has been taking a post-graduate course in ophthalmology and has served as resident at the St. Louis City Hospital.

Dr. Herman G. Morgan, secretary of the Indianapolis Board of Health, has announced the appointment of Miss Helen Daniels, former chief of the Intake Department of the Juvenile Court, as head of the Social Service Department of the Venereal Disease Isolation Hospital. The sociological and rehabilitation program to be undertaken at the hospital is a comparatively new field, and will be a factor in curbing juvenile delinquency.

"Your Health," a program heard over WLW every Saturday at 9:45 A.M., is one of the most popular and oldest broadcasts over the Nation's Station. For a number of years Dr. Carl A. Wilzbach, health commissioner of Cincinnati, has presented the "Your Health" programs. Dr. Wilzbach discusses important aspects of personal, family and public health. The program has recently been expanded into a combined dramatic and narrative presentation, bringing to listeners discussions that are of especial importance during the present war period. However, Dr. Wilzbach is continuing his talks on the broadcasts.

FREE SUPPLEMENT TO U.S.P. XII

Notice is hereby given to owners of all copies of the U.S.P. XII to fill in and mail the post card order which is tipped inside the back cover of the U.S.P. XII, and which entitles the holder to a copy of the First U.S.P. XII Bound Supplement soon to be issued. It was not expected that this Supplement would be issued until about two and one half years after the appearance of the U.S.P. XII, but changing conditions and wartime demands have necessitated its immediate publication. The Supplement itself will carry a similar order form for a Second Bound Supplement, should the latter be required before the appearance of the U.S.P. XIII.

It is expected that the First U.S.P. XII Bound Supplement will be available within two months and when it becomes available immediate shipment will be made without further cost to those who mail in their order cards as directed.

Dr. Jules Heritier, who recently completed his internship at the Indiana University hospitals, has become associated with Dr. L. A. Ensminger, of Indianapolis. Dr. Heritier is a member of the United States Army Medical Reserve and will continue his association with Dr. Ensminger until called into active military service.

Dr. J. R. Newcomb has been appointed chief of staff of the Civilian Defense Emergency Medical Services for the city of Indianapolis and Marion County. He will recruit and organize physicians and members of hospital staffs for emergency service in the event of an air raid or other wartime disaster.

MEETING OF INDIANA ASSOCIATION OF THE HISTORY OF MEDICINE

Members of the Indiana Association of the History of Medicine were entertained at the home of Dr. and Mrs. Edgar F. Kiser, of Indianapolis, on Tuesday evening, June fifteenth. A business meeting was held, most of the officers being re-elected. The officers for 1943-44 are: E. N. Kime, M.D., president; Mrs. Anthony J. Russo, vice-president; Nella H. Rokke, secretary-treasurer; Mrs. Mable K. Stabler, program chairman; Ruth J. McNutt, archivist and librarian; and Grace Bartle, publicity chairman.

Two very interesting papers were presented. Miss Ruth McNutt had compiled a comprehensive history of the Indiana University Medical School Library, but asked that credit also be given to Mr. Allan Hendricks, her predecessor, who had collaborated and whose assistance in giving pertinent data was of great value because of his regime as librarian during its development. Miss McNutt reported that this library owes its existence to the Indiana University School of Medicine, and that it had its real inception in 1870 through a five-thousand-dollar bequest of Dr. John Stough Bobbs. In 1871 the Indiana Medical College was made the Medical Department of Indiana University, and in 1908 the library fell heir to the books of the Indiana Medical College. Since 1928 its circulation has increased steadily.

Through the combined efforts of Mrs. Irene M. Streiby and Mrs. Betty Jacobs Davis, staff members of the Library of the Eli Lilly Research Laboratories, a history and description of the Lilly Library had been prepared. This report covered the transition of the library from a mere collection of textbooks to an organized tool for research and depicted its various stages of development up to its present volume of fifteen thousand books.

The next meeting will be held early in October, at the home of Mrs. Margaret D. Beach.

Drs. J. M. Kercheval and C. F. Kercheval, Wolcottville physicians, have moved to Indianola, Mississippi, where they will establish their practice.

Information has reached us to the effect that Dr. S. C. Wagner, of Elkhart, has been appointed Elkhart County coroner.

Dr. J. C. Elliott, of Guilford, was elected president of the Dearborn County Tuberculosis Association at its annual meeting held in Lawrenceburg on May thirteenth.

Dr. C. E. Gillespie, of Seymour, was a recent speaker at the New York Society of Clinical Ophthalmology, his subject being "Aviation Ophthalmology."

Dr. Robert L. Schmidt and Miss Helen Cantwell, of Indianapolis, were married at the First Presbyterian Church, in Indianapolis, on April twenty-fourth. Dr. Schmidt will complete his internship at the St. Francis Hospital, Beech Grove, in June.

The American Red Cross reports that Red Cross volunteers have produced 3,000,000 comfort items for the Army and Navy. The articles were made according to Army and Navy regulations. The Mid-eastern Area contributed the greatest amount of hospital equipment, with a total of 221,781 articles, while the Pacific Area led with its contribution of 720,570 items to the ablebodied of the armed forces. The report showed that in the majority of cases every area either equalled or exceeded its quota.

A dinner was held at the Indianapolis Methodist Hospital on May twenty-second for twenty-five interns and residents who completed their training. Of the residents, Dr. Alvin T. Stone, chief resident physician, will continue to serve in that capacity; Dr. Clyde E. Miller will enter the Army Medical Corps; Dr. Charles F. Deppe will go into the Navy Medical Corps; and Dr. William P. Marshall will remain at the hospital as resident in anesthesia. Among the interns, Drs. Arnold J. Bachmann, Harold F. Burdette, Robert Louis Dilts, Myron Harrison Green, James H. McDonald, Roger F. Whitcomb, Charles David Williams and Robert A. Switzer will become residents in various departments of the hospital; Drs. Harvey B. Eastburn, Charles E. Green, Richard C. Pryor, David Joe Smith, Francis Cushman Whitlock and Jay K. Wisdom will enter the Army Medical Corps; Drs. Robert P. Mason and Frank C. McDonald will become members of the Navy Medical Corps; and Drs. John Calvin Brink, Oscar D. Havens and William A. Kurtz will enter private practice.

On May eleventh Lafayette honored one of its veteran physicians, Dr. S. B. Sims, with a dinner given at the hospital in observance of his birthday. Many fine tributes were paid to Doctor Sims for his service to the community.

James R. Roth, M.D., of Boonville, who recently completed his internship at the Indiana University Medical Center, was married to Miss Joan Luckey, of Wolf Lake, on May thirteenth. The wedding took place at the Irvington Presbyterian Church in Indianapolis.

The following is the essence of an editorial which appeared in the Lafayette Journal-Courier of May 12, 1943:

In the midst of a colossal war, it is fitting that National Hospital Day should be celebrated as it was Wednesday afternoon, May 12, 1943, at the St. Elizabeth Hospital, with impressive patriotic ceremonies in the beautiful hospital gardens.

The inspiring program was both a touching memorial and a glowing tribute, honoring Dr. E. N. Kveton, who interned at St. Elizabeth, the first Indiana doctor to give his life for his country in World War II; and also honoring staff doctors and graduate nurses who are now serving in the armed forces. Special recognition was also accorded Red Cross Nurses' Aides who received training at the hospital and the Red Cross Motor Corps.

An eloquent address was delivered by the Rev. Columban Kramer, O.F.M., dean of St. Francis College, who eulogized Lieutenant E. N. Kveton, the former intern, who was killed in action in a sea battle at Midway in the Pacific when a shell struck the sick bay of the destroyer on which he was serving and destroyed it, the entire staff and all the patients being instantly killed. Dean Kramer also spoke words of high praise for the staff doctors, nurses and others now in active Army or Navy service.

Taking part in the colorful proceedings were Army and Navy officials of Purdue University, with the Purdue band, Sisters of St. Francis, clergy, staff physicians and surgeons of the hospital, wives of the doctors in service, and Red Cross leaders. Dr. E. B. Ruschli, president of the hospital staff, was master of ceremonies. Dr. E. L. Van Buskirk, secretary and treasurer of the staff was co-chairman. Dr. F. S. Crockett spoke for the medical profession. Lieutenant Commander L. J. Holladay spoke on "Foreign Service." Mrs. F. W. Peyton represented the wives of the medical men in service, and Miss Edna Dunnewald spoke on "The Nursing Profession."

The hospital's service flags—one for the doctors containing forty-eight stars—was carried by Dr. Guy P. Levering, and the nurses' flag containing sixteen stars was carried by Miss Louise Maier, R.N. Sailor and soldier escorts were with each flag.

Doctors, their wives and relatives of the medical men in the service were entertained at luncheon by the Sisters in the auditorium. Mrs. E. B. Ruschli was hostess chairman and several members of the Red Cross staff assisted.

A beautiful hand painted scroll, centered with a picture of the late Dr. Kveton, was hung Wednesday in the hospital's Memorial Medical Library on the first floor.

INDIANA UNIVERSITY NEWS NOTES

The study of tropical medicine, heretofore confined to a few American medical schools, has been introduced in the Indiana University School of Medicine. Dean W. D. Gatch explained that steps had been taken, first, to prepare the future Army and Navy physicians now being trained in the medical school for service in the tropic regions of the global war, and second, as a precaution against the day when the far-flung American Army returns home, possibly bringing with it diseases rare or unknown in the United States.

Selected to head the school's tropical medicine and parasitology staff is Dr. William H. Headlee, a Hoosier in that he is a native of Shelby County, graduated from Earlham College and taught at Purdue University, one who has studied the odd diseases of tropical Egypt, was a Rockefeller Foundation Fellow at the Tulane University Institute of Tropical Medicine, and spent a year as a biologist and parasitologist in Venezuela. When in Egypt he lived in a native village for three months, making observations as to the habits of the people in reference to the propagation and dissemination of helminth or worm infections. In Venezuela he drew up the plans for the laboratories of the new Institute of Tropical Medicine at Caracas.

In introducing the study of tropical medicine and in the appointment of Dr. Headlee as assistant professor of parasitology, the Indiana University School of Medicine followed the recommendations of the Association of American Medical Colleges. This association in co-operation with the armed forces arranged intensive courses for those chosen to teach in the various medical schools. Early this year Professor Headlee spent two months at the Army Medical School in Washington, taking courses in tropical and military medicine.

An indication of one of the medical problems which the country will face after the war is seen by Dr. Headlee in the high percentage of Army, Navy and Marine Corps men invalided by malaria. Eighteen per cent of the Army men from the Southwest Pacific at one Army hospital were found to have malaria. Dr. Headlee does not foresee any danger of a tropical disease epidemic in the United States after the war.

"Three factors are necessary for the spread of most so-called tropical diseases," he explained. "First, there is the disease in the form of protozoa (one-celled animals) or helminths (worms) which may be brought into the United States. Second, there is the host or carrier, which in some cases we have in the United States. Third, there must be unsanitary conditions which fortunately we do not have to any great extent in the United States."

Diseases from the tropics which could be brought back to this country, in the opinion of Dr. Headlee, include malaria; a South American disease similar to African sleeping sickness, carried by bugs which are present in some southwestern states; various blood worms, and certain skin diseases which abound in the Orient.

"With regard to these tropical diseases it is better to be safe than to be sorry, and that is the reason why medical students today are being required to study tropical medicine," Dr. Headlee said.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

May 9, 1943.

Roll call showed the following present: C. A. Nafe, M.D., chairman; E. O. Asher, M.D.; C. H. McCaskey, M.D.; J. T. Oliphant, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: N. M. Beatty, M.D., A. M. Mitchell, M.D., and J. E. Ferrell, M.D., alternate delegates to the A.M.A.; J. R. Newcomb, M.D., chairman, War Participation Committee of the Indianapolis Medical Society; C. L. Rudesill, M.D., chairman, OPA Medical Advisory Committee; Thurman B. Rice, M.D., secretary, and R. E. Jewett, M.D., acting chief, Bureau of Maternal and Child-Health, Indiana State Board of Health.

The statements of receipts and expenditures for January through April for the association committees, and for March and April for THE JOURNAL were approved.

Membership Report

Number of members May 8, 1943	2,865*
Number of members May 8, 1942	3,097
Loss over last year	232
Number of members Dec. 31, 1942	3,259

* This figure includes 110 honorary members, and 681 men in service who received membership gratis.

Suggestion made that figures be presented at the next meeting as to where delinquencies are heaviest and perhaps it might be well for the

president and secretary of the state association to visit the various societies and discuss the situation.

Treasurer's Office

The treasurer reported that the following investments had been made in war bonds:

General Fund—

March 24, 1942—U. S. Savings Bonds, Defense Series G	$2,000.00
December 26, 1942—U. S. Savings Bonds, Defense Series G	3,000.00
Medical Defense Fund—	
December 26, 1942—U. S. Savings Bonds, Defense Series G	2,000.00
	$7,000.00

He felt that it would not be wise to purchase additional bonds this early in the year from the balance in the general fund and the medical defense fund.

1943 Annual Session at Indianapolis, September 28, 29 and 30, 1943

Commercial Exhibit.

Forty-seven spaces sold; two to be sold.

Rule governing acceptance of exhibits amended. Upon the motion of Dr. Asher, seconded by Dr. Romberger, the committee amended the following rule governing the acceptance of exhibits for the state meeting—

"No proprietary drugs, chemicals or therapeutic agents which are not listed in the national formulary or in the U. S. Pharmacopeia or which do not comply with the rules of the Council on Pharmacy and Chemistry and of the Council on Physical Therapy of the American Medical Association will be accepted,"

to read as follows:

"No proprietary drugs, chemicals or therapeutic agents which have been disapproved by the Council on Pharmacy and Chemistry or by the Council on Physical Therapy of the American Medical Association will be accepted."

Exhibit for the state meeting from the F. E. Young and Company accepted by the Executive Committee as no complaint was received either from exhibitors or from physicians of the state concerning this exhibit last year.

Letter received from Parke, Davis and Company stating that they would like to exhibit but can not comply with the rules set up by the Indiana State Medical Association whereby only pharmaceutical products approved by the Council on Pharmacy and Chemistry of the American Medical Association can be accepted. The letter reads in part: "Our set-up for 1943 medical exhibits calls for the display and promotion of certain new pharmaceutical products of a strictly ethical character, which are of prime interest to the medical profession at large, and particularly so at this time; however, all are not Council accepted." The committee authorized a letter to be written to Parke, Davis and Company, stating the new rule adopted by the Executive Committee concerning exhibits.

Exhibit accepted from the C. B. Fleet Company.

Scientific Exhibit. Committee composed of Drs. C. G. Culbertson, Ernest Rupel, and Kenneth Kohlstaedt.

Report of chairman of General Arrangements Committee:

"Your Committee on General Arrangements for the session of the Indiana State Medical Association, September 28, 29 and 30, 1943, at Indianapolis, has made the necessary committee assignments for the committees of the host society, necessary for the operation of this meeting.

"Specific arrangements regarding the banquet and smoker have not been completed, but it is anticipated that the smoker will be held in the Murat Temple and the banquet at the Scottish Rite Cathedral.

"A chairman for the Instructional Course has not been obtained. There is considerable feeling that the mechanics of this project are too elaborate for the response expected from doctors attending the meeting. The Committee on General Arrangements intends to circularize the members of the state society to determine their desire for such courses and to promote this portion of the program if the response justifies its undertaking."

Annual banquet. The president-elect of the American Medical Association is to be invited by the delegates to be the principal banquet speaker.

Legislative, Legal and Social Security Matters

National

A.M.A. legislative bulletins No. 25 and No. 26 sent to members of the Executive Committee.

Report made by Dr. McCaskey on the post-war planning meeting held in New York on March 15, together with the editorial that appeared in the *New York Times*, and the activities of the National Physicians' Committee.

Temporary War Civilian Security program of the Federal Security program of the Federal Security Agency for medical care brought to the attention of the committee. This program is temporary and affects those and the families of those who are injured as a result of enemy attack or action while in the performance of their duties as civilian defense workers.

Opposition to amendment to allow os'eopaths to serve in United States Public Health Service. This amendment has passed the Senate without a voice being raised against it. It is now up for consideration before the House. Telegrams expressing opposition to this amendment were sent to Senators Frederick Van Nuys and Raymond Willis when this matter was up before the Senate, and also to Representative Charles A. Halleck, who is a member of the Committee on Interstate and Foreign

Commerce of the House of Representatives, before which the amendment is now pending.

Local

Final report of the Legislative Committee appeared in the April issue of THE JOURNAL of the Indiana State Medical Association.

Hospital commitment bills. Dr. Asher, chairman of the Medical Relief Committee of the state association, gave a report on the joint meeting with judges, representatives of the State Department of Public Welfare, university authorities, and hospital representatives in regard to the three new hospital commitment bills. Suggestion made that a meeting of the Executive Committee and the officers of judges' association be held some time in the near future.

Report made in regard to the Scherer case whereby the Indiana Supreme Court reversed the decision of the Hamilton Circuit Court which had ordered the State Board of Medical Registration and Examination to restore the license of J. R. Scherer of Indianapolis to practice drugless healing. It was the opinion of the Supreme Court, according to the newspaper, that "Dr. Scherer was licensed to practice naturopathy, but testimony was offered to show that he prescribed medicine and represented himself as the successor of a successful physician. It further was alleged that he advertised himself as an 'M.D.' . . . and that he was posing as a medical doctor, while holding only the license of a drugless healer."

Future Medical Meetings

American Medical Association meeting, Chicago, June 7.

The committee considered resolutions passed by the National Conference on Medical Service, the Ohio State Medical Association, the District of Columbia Medical Society, and several other societies in regard to the establishment of a Washington office by the A.M.A. The committee also discussed the National Physicians Committee.

The following action was taken by the Executive Committee upon the motion of Dr. Asher, seconded by Dr. Romberger:

"It is the sentiment of the Executive Committee of the Indiana State Medical Association that the Indiana delegates to the American Medical Association meeting, to be held in Chicago in June, 1943, support *in principle* the proposal that a Washington A.M.A. office be established.

"The Executive Committee also believes that the action taken by the House of Delegates of the American Medical Association last year, which specifically endorsed and thereby officially recognized the National Physicians Committee, should be rescinded."

District Meetings:

4th District—Greensburg, May 19, 1943.

6th District—Shelbyville, May 20, 1943. (Preliminary word received that this meeting would be canceled.)

9th District—Lafayette, May 20, 1943.

11th District—Marion, May 19, 1943.

Members of Executive Committee to attend Greensburg and Lafayette meetings. Arrangements should be made for some officer of the state medical association to attend the Eleventh District meeting at Marion, which comes on May 19, the same date as the Fourth District meeting at Greensburg.

May 18, 1943—Joint meeting of Indiana State Dental Association and Indianapolis Medical Society. Dr. Harry A. Oberhelman to speak on "The Treatment of Injuries in All-Out War."

June 5, 1943—Cooperative Medical Advertising Bureau meeting to be held in Chicago. Dr. E. M. Shanklin, editor of THE JOURNAL, and the managing editor to attend this meeting. A statement as to the stand taken by the Indiana State Medical Association in regard to the Cooperative Advertising Bureau to be submitted to the members of the committee for their approval. In general, this statement is to include the following points:

1. Indiana is opposed to any action which would sever the Cooperative Advertising Bureau from the American Medical Association.
2. It is the recommendation of the committee that larger representation be given on the Cooperative Advertising Bureau Committee to the state journals.
3. Such committee should be a functioning, not merely a paper committee, and should make definite, detailed reports to the various states belonging to the Cooperative Bureau.
4. The committee feels strongly that the proper machinery should be set up whereby anyone who contacts the American Medical Association or its officials in regard to advertising be told of the field covered by the state journals and that the A.M.A. should not take the choice advertising and give what is left over to the state journals. An aggressive program on behalf of the state journals should be carried on through the Cooperative Bureau.
5. A survey should be made of those products which are used regularly by physicians and have the approval of the Pure Food and Drug Administration but are not accepted by the Council on Pharmacy and Chemistry of the A.M.A. This survey should determine whether there are certain generally-accepted products for which the state journals would supply an advertising outlet—an outlet which is now limited to the throwaway journals and those journals such as Illinois and New York, which are not members of the Cooperative Advertising Bureau.

Organization Matters

Membership dues of men in service. The committee ruled that the resolution making it unnecessary for men in the armed forces to pay dues does not apply to physicians who hold commissions in the Coast Guard Reserve.

Case against Dr. William F. Koch. Information brought to the attention of the Executive Commit-

tee that Dr. John W. Kannel, of Fort Wayne, Indiana, a member of the Indiana State Medical Association, was one of the principal witnesses for Dr. Koch.

Committee on Hard of Hearing. Dr. McCaskey appointed the following members to a newly created Committee on Hard of Hearing: Chairman, J. Kent Leasure, Indianapolis; O. T. Allen, Terre Haute; E. E. Holland, Richmond, M. G. Erehart, Huntington; B. D. Ravdin, Evansville; K. L. Craft, Indianapolis.

Suggestion made that the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health be enlarged to include several new members who would be able to attend meetings of this committee. It is understood from Dr. Robert E. Jewett, acting chief of the Bureau of Maternal and Child-Health, that this committee has not met due to the fact that it was not able to obtain enough members to make up a quorum, some of the members having to come long distances to Indianapolis and other members being in the service.

Medical Economics

Letter from township trustees. Letter from Otto F. Walls, secretary-treasurer of the Indiana Township Trustees' Association, brought to the attention of the committee. This letter indicated that the Township Trustees' Association would cooperate in trying to settle any questions that might arise between any of the trustees and physicians concerning the problems of medical care. The specific case involved was in regard to two trustees in Kosciusko County.

County Hospital staff situation. The president of a county medical society appeared before the Executive Committee and discussed the rights of a hospital to reject or admit a physician to the hospital staff. The committee stated that in its opinion a hospital has the legal right to determine who should be on its staff.

War Medicine

Recruitment of nurses. At the request of the Recruitment Committee of the American Red Cross, Dr. McCaskey has written a letter to nurses urging them to enlist.

Indiana physicians and the war. "Indiana Physicians and the War" is the title of a series of articles which are to appear in the *Indianapolis News.* These articles were prepared under the direction of the Bureau of Publicity of the state medical association.

OPA Medical Advisory Committee. Dr. C. L. Rudesill, chairman of this committee, made a report in regard to doctors' certificates for additional food rationing for sick people. In co-operation with a group of dietitians, the OPA Medical Advisory Committee has prepared an article for publication in THE JOURNAL, giving diet lists for various types of patients. Dr. Rudesill stated that he thought it would be well to send reprints of this article to each physician in the state, so that each physician could have it for ready reference. He also thought that reprints of the article should be available for each rationing board.

The committee recommended that county medical societies appoint committees to co-operate and advise with local rationing boards on questionable cases.

Monthly letters to men in service. Dr. J. R. Newcomb, vice-chairman of the War Participation Committee, told the committee of the monthly letters which had been prepared and distributed to each man in service. The first of these letters was written by Dr. McCaskey, president of the state association, and following this idea Dr. Newcomb has obtained letters from Governor Schricker, President Wells, Booth Tarkington, George Ade, Cornelia Otis Skinner, and others. These letters are sent out each month to all Indiana physicians in service, going V-mail to men on duty overseas. Upon the motion of Dr. McCaskey, seconded by Dr. Romberger, this program of correspondence was approved by the Executive Committee and the expenses in sending the letters were authorized.

Markers for doctors' cars. Insignia for doctors' cars are being supplied by the Indianapolis Motor Club and clubs in many other counties in the state. Any county medical society interested in obtaining these insignia should communicate with Todd Stoops, secretary of the Indianapolis Motor Club, or their local motor club.

Physicians in service doing surgery on civilians. Complaint has been received from a doctor in service that in one county in the state physicians in the Navy are doing surgery on civilians. The question arises as to whether any fees are being charged for such services. The committee recommended that this matter be referred to the councilor of the district covering the community concerning which the complaint is made.

War Production Board limitation order on physical therapy equipment. Complaint from N. H. Prentiss, M.D., chairman of the Committee on Physical Therapy of the Indiana State Medical Association, along with correspondence from the American Medical Association concerning this order, brought to the attention of the committee. Dr. Olin West, secretary of the American Medical Association, has written as follows in regard to this matter:

> "Frankly, I am quite convinced that there is little or nothing that can be done about the situation referred to in the letter addressed to you by Doctor Prentiss. I have been making some inquiries into this matter and am informed, through reliable sources, that government officials concerned with the control of essential supplies have sought advice from members of various professional groups. I am also informed that there is an extreme shortage of certain materials that are

used in physical therapy apparatus, and that the demands of the military forces for replacement of tubes used for many purposes in both the Army, the Navy and the Coast Guard simply make it impossible to provide those needs and at the same time provide tubes for certain apparatus used by physical therapists. I am informed also that there is a very serious shortage in certain types and sizes of copper wire and other copper forms, and that the need of such material for airplanes, ships, military radio stations, etc., etc., is so great it will not be possible to provide such material for other purposes except in very limited amount.

"I am informed that our Council on Physical Therapy has entered a protest against the restrictions imposed under Limitation Order L-259 but, from the information that has come to me from Washington and elsewhere, I am almost willing to predict definitely that that protest or any other protest will not get very far."

Complaint on Japanese physician. This was turned over to the councilor of the district from which the complaint came.

Resolution against licensing refugee physicians. Resolution passed by the Lake County Medical Society covering this subject brought to the attention of the committee.

Shortage of physicians. Comment appearing in Drew Pearson's Washington Merry-Go-Round column, claiming there is a shortage of physicians and blaming the state medical associations for not changing state licensing requirements to take care of this shortage by licensing refugee physicians, brought to the attention of the committee.

Industrial Medicine

Report made that Indiana's industrial health program has been adopted as the type of program that might be used as a basis for such programs in other states. In Indiana the program is in the second phase, whereby individual physicians will receive training which will qualify them to do industrial health work.

Farm Security Administration

Movement is now on in Congress to discontinue the Farm Security Administration completely.

State Board of Health

Blood tests for industry by state laboratories. Complaint received from Vigo County Medical Society in regard to tests made for industry by state laboratories. This subject was discussed by Thurman Rice, M.D., secretary of the Indiana State Board of Health.

Maternity and pediatric care of wives and children of enlisted men in the armed services. This program which was passed by Congress was explained by Dr. Rice and Dr. Jewett. The Executive Committee and Dr. Rice agreed to the following statement in regard to this program:

"In regard to the problem of maternity and pediatric care of wives and children of enlisted men in the armed forces, this question in concrete form was presented to the medical profession for the first time Sunday (May 9), but as yet no definite plan has been considered. The Executive Committee of the State Medical Association is sure that action taken by Congress and the State Board of Health with regard to maternity and pediatric care of needy wives and children of enlisted men will meet the hearty cooperation of the medical profession of the state of Indiana."

Medical Defense

Information in regard to group policies by various state societies has been collected and will be brought to the attention of the committee at the next meeting.

There being no further business, the meeting was adjourned.

LOCAL SOCIETY REPORTS

Carroll County Medical Society members and their wives held a dinner meeting at the Welcome Inn, at Delphi, on May thirteenth. Twelve members and guests were in attendance.

* * *

Dearborn-Ohio County Medical Society members held a dinner meeting at the John Fulton Inn, at Rising Sun, on May twenty-seventh. At its close they met in the home of Dr. G. S. Fessler, of Rising Sun, for a business session. Motion pictures were also shown. Ten members were in attendance at this meeting.

* * *

Delaware-Blackford County Medical Society members met at the Ball Memorial Hospital, at Muncie, on May twenty-fifth. Dr. Lawrence Nehil of Indianapolis, spoke on "Diagnostic Bronchoscopy." Thirty members were present at the meeting.

* * *

Grant County Medical Society members held a meeting at the Marion General Hospital, at Marion, on April twenty-second. Representative William Conners was the speaker of the evening. His subject was "My Recent Experience in State Legislature." Thirteen members were in attendance at this meeting.

* * *

Greene County Medical Society members met at the Freeman Greene County Hospital, at Linton, on May twelfth. Dr. George Porter, of Linton, spoke on "Metabolic Waste." Eight members were present.

Lake County Medical Society members met at the Woodmar Country Club, at Hammond, on June fourth. Dr. P. S. Pelouze, a consultant for gonorrhea control for the United States Public Health Service, was the guest speaker.

* * *

LaPorte County Medical Society members held a meeting at the Spaulding Hotel, at Michigan City, on May twentieth. Dr. H. O. Mertz, of Indianapolis, was the guest speaker, his subject being "The Influence of Sex Hormones on Prostatic Cancer." Twenty-five members were in attendance at this meeting.

* * *

Monroe County Medical Society members met at the Graham Hotel at Bloomington, on May twenty-sixth. It was a general meeting. Twelve members were present.

* * *

Randolph County Medical Society members held a meeting at Winchester on May tenth. Dr. Fred Ruby, of Union City, spoke on "Essential Atrophy of the Iris." Twelve members were present.

* * *

Tippecanoe County Medical Society members held a meeting at the Lincoln Lodge, at Lafayette, on June eighth. Lieutenant Colonel W. A. Johnson, director of Civilian Defense in the Fourth, Fifth and Sixth Army Corps, spoke on "Civilian Protection and Gas Warfare." A talkie movie on "Gas Warfare Protection" was shown. Twenty-eight members were present at the meeting.

* * *

Allen County Medical Society members held a meeting at Baer Field on May eighteenth. Members of the society were guests of the staff at the Army Air Base at the station hospital. Lieutenant Colonel Richard I. Crone, the base surgeon, presided, and Colonel R .L. Copsey, the base commander, gave a short talk, expressing appreciation for the cooperation and assistance accorded Baer Field by Fort Wayne physicians. The scientific program was staged by five members of the Army medical staff: Captain Phillip L. Rossman discussed tuberculosis in the Army; Lieutenant Meyer Freedman gave a case report; Major Samuel B. Prevo, flight surgeon of the Flying Tigers, told of the recent advances in the treatment of burns; Captain Morris F. Heller spoke on war injuries to the face; and Captain Matthew Cornacchione presented three orthopedic surgery cases.

* * *

The Fort Wayne Academy of Medicine and Surgery held its annual meeting on May eleventh. Dr. Walter E. Kruse, of Fort Wayne, was elected president of the society. Dr. William Gessler was elected vice-president, and Dr. M. H. Draper was elected secretary. Drs. Paul Bailey and Mahlon Miller were elected as members of the executive council.

DISTRICT MEETINGS

FOURTH DISTRICT MEDICAL SOCIETY MEETING

The Fourth District members held a meeting at the Y.M.C.A. at Greensburg on May nineteenth. Several Indianapolis physicians took part in the program: Drs. Matthew Winters; A. C. Corcoran; Cleon A. Nafe; C. R. Bird; and Carl H. McCaskey, president of the Indiana State Medical Association. The 1944 assembly will be held at North Vernon.

NINTH DISTRICT MEDICAL SOCIETY MEETING

The Ninth District members held a meeting at Lafayette on May twentieth, The Tippecanoe County Medical Society acting as host. Dr. E. S. Jones, of Hammond, spoke on "Industrial Medicine in Action"; and Dr. George S. Bond, of Indianapolis, discussed "Evaluation of Some Heart Troubles." A discussion was led by Thomas A. Hendricks, secretary of the Indiana State Medical Association, following a talk on "Post-War Medicine — Where?" by Dr. C. H. McCaskey, president of the Association.

ELEVENTH DISTRICT MEDICAL SOCIETY MEETING

The Eleventh District members held their sixty-ninth semi-annual meeting at Marion on May nineteenth. Dr. O. G. Brubaker, secretary of the society, reported that in spite of high waters and heavy rains they had a good attendance — fifty-three members were present. The following speakers appeared on the scientific program: Dr. Louis J. Hirschman, of Detroit, Michigan, whose subject was "Practical Proctology for the General Practitioner"; Lieutenant Commander Howard B. Weaver, of the United States Naval Reserve, who spoke on "The Management of Persistent Occiput Posterior"; Dr. Louis W. Spolyar, of Indianapolis, who discussed "A New Occupational Disease as the Result of Our War Production Program"; and Dr. Robert E. Jewett, of the Indiana State Board of Health, who gave a brief discussion of the plans being perfected for the medical care of the wives and dependents of men in the services. The next meeting will be held in Huntington on Wednesday, October 20, 1943.

We are going to pay for our share of this war one way or another. The easiest way is to buy War Savings Bonds and Stamps. The best way to be sure that every man and woman is doing his or her part is by the war Bond Quota System. It is the Selective Service method of our civilian army.

WOMAN'S AUXILIARY
to the
Indiana State Medical Association

President—Mrs. Arnold H. Duemling, Fort Wayne
President-elect—Mrs. James W. Baxter, Jr., New Albany
Corresponding Secretary—Mrs. E. M. VanBuskirk, Fort Wayne
Treasurer—Mrs. C. E. Monk, Kendallville

REPORT OF THE ANNUAL MEETING OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

This report of the twenty-first annual meeting of the Woman's Auxiliary to the American Medical Association is a composite, for it is compiled from the notes taken by each of the Indiana delegates and alternates on assigned parts of the convention program.

The following were present at the pre-convention luncheon Monday, June seventh:

National Board members:

Mrs. A. H. Duemling, state president,
Mrs. George Dillinger, national chairman of *Hygeia*.

Delegates:

Mrs. C. E. Munk, Kendallville,
Mrs. E. M. Van Buskirk, Fort Wayne,
Mrs. Charles Voyles, Indianapolis,
Mrs. F. M. Gastineau, Indianapolis,
Mrs. M. B. Van Cleave, Terre Haute,
Mrs. E. N. Mendenhall, Fort Wayne.

Alternates:

Mrs. C. I. Scott, Sullivan,
Mrs. F. B. Wishard, Pendleton,
Mrs. W. H. Howard, Hammond.

Two of our women were honored by special convention duties. Mrs. Duemling was one of the two official timekeepers for the convention, and Mrs. Van Cleave was an alternate member of the nominating committee.

Mrs. Frank N. Haggard, national president, presided at the pre-convention luncheon honoring the past presidents, and introduced Mrs. M. A. Nix, state president of the Illinois Auxiliary, who conducted the ceremony commemorating the achievements of each of the twenty-one presidents. Red and white tapers arranged among the flowers of the central table decoration were lighted as Mrs. Nix named the living and deceased presidents.

Mrs. Nix introduced the guest speaker, Dr. Frank P. Hammond, chairman of the Advisory Committee of the Woman's Auxiliary to the Illinois State Medical Association. Dr. Hammond is such an enthusiastic believer in the value of the Woman's Auxiliary to the medical profession that one can readily see why the Illinois Auxiliary is so powerful.

Dr. Hammond took as his subject "Doctors' Wives, Medicine's Strongest Ally." In his discussion he listed three reasons why county medical societies have failed to appreciate the value of organized auxiliaries:

1. Plain old fashioned inertia.
2. Fear that such organizations might become gossip clubs.
3. Fear that the wives might be, because of misinformation or no information, a powerful medium for advancing theories and policies subversive to the medical profession.

The speaker so thoroughly believes that actual experience disproves these ideas, and demonstrates the immeasurable value to the profession, that he is willing to go before any medical society to champion and urge the further organization of auxiliaries. However, he will make no such trip unless a definite pre-arranged time on the society program is assigned to him.

Mayor Kelly, personally, extended greetings to the convention.

The formal opening of the convention was at 2:00 P. M. Monday. Mrs. Frank N. Haggard presided. As the program of the convention has appeared in *The Journal of the American Medical Association* and in our own Bulletin, and as the addresses of the guest speakers and reports of the states have and will be published in the Bulletin, this composite is intended to give the highlights as we all saw them through our nine or ten minds.

There were a few remarkable things evident in the face of the limitations war conditions have placed:

1. State presidents and delegates were there from California to New Jersey, and from Texas to Wisconsin, 139 of them by noon Monday and 168 by Tuesday morning.
2. The Central office, at its first birthday, has proved its efficiency and inestimable value.
3. The Bulletin has paid for itself and has a slight surplus.
4. The judgment of the Finance Committee has proved sound under conditions without precedent. Plans for future work and growth are encouraging.

A Revisions Committee to rebuild or modify the present Constitution and By-Laws is working in conjunction with the Trustees and the attorney for the American Medical Association. Many controversial ideas precluded a presentation of the instrument at this time, as had been anticipated. Further work is to be done, and the results are to be presented to the National Board members in November. After this presentation the lay members will be given the endorsed articles for consideration and final vote at the next annual meeting.

Hygeia and Health Records, one group of sixteen entitled "What to Do Before the Doctor Comes," and another of six entitled "Doctors Serve the Public During War," are the two media available through the Health Education Bureau of the American Medical Association for our great health

education responsibilities. These records can be obtained for use over local broadcasting facilities at no expense other than postage and the obligation to return them to the Chicago office promptly.

The "Doctors' Aide Corps," as inaugurated by the Fulton County Auxiliary in Atlanta, Georgia, offers various types of practical wartime and reconstruction health education work. Any part of this is valuable and thrilling, especially in juvenile delinquency safeguards.

Two resolutions proposed were interesting and were referred to the board of the new administration:

1. War Activities Committee to be created to plan and direct present participation in war work and in the reconstruction period.

2. National membership cards to facilitate identification and recognition of members permanently and temporarily absent from their local societies.

Mrs. Duemling reports that these two resolutions were accepted and the mechanics for their operation set up.

The third resolution adopted by the House of Delegates established a pledge of loyalty to the ideals of the auxiliary to be required of each new member, and renewed each year by old members.

Brigadier General Fred Rankin, president of the American Medical Association, Dr. James E. Paullin, president-elect of the American Medical Association, and Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*, were guest speakers at the luncheon Tuesday, in honor of Mrs. Frank N. Haggard. Each of these gentlemen lauded the work done by the auxiliary for the medical profession, and urged wider organization and greater activity in preparation for the reconstruction period.

Mrs. Duemling requests and urges that all counties avail themselves of the privilege of issuing to each member her membership card. These cards should be issued at the time your members pay dues. These cards indicate county, state and national membership in the auxiliary. Please notify Mrs. C. E. Munk of the number of cards you will need. These are identical for the entire United States. Be sure to get your national membership cards; do not incur the expense of local cards.

LOGICAL

Private Yardbird walked into the Post Exchange with a terriffic black eye. On being questioned as to how he got it, he explained, "I came back to camp quite late last night and as I entered the area I was stopped with 'Halt! Who Goes There?' so I said, 'Gen. MacArthur,' and (pointing to his eye) this is what I got."

Whereupon one of the listeners said, "Well, it was your own fault. Why didn't you tell the guard your right name?" Yardbird, pointing to his eye again said, "Can you imagine, if he did this to MacArthur, what he would have done to me?" —*The Ivy Leaf.*

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Books

BOOKS RECEIVED

ATLAS OF OBSTETRIC TECHNIC. By Paul Titus, M.D. 180 pages with 193 figures. Cloth. Price $7.00. The C. V. Mosby Company, St. Louis, 1943.

CHILDREN CAN HELP THEMSELVES. By Marion Olive Lerrigo, Ph.D. 219 pages. Cloth. Price $2.25. The MacMillan Company, New York, 1943.

SOMATIC AND ENDOCRINE STUDIES OF PUBERAL AND ADOLESCENT BOYS. By William Walter Greulich, Ph.D., Ralph I. Dorfman, Ph.D., Hubert R. Catchpole, Ph.D., Charles I. Solomon, M.D., Charles S. Culotta, M.D. 85 pages with several illustrations. Poper. Price $1.50. Society for Research in Child Development, National Research Council, Washington, D. C., 1942.

BOOKS REVIEWED

THE 1941 YEAR BOOK OF PATHOLOGY AND IMMUNOLOGY.

Division on Pathology edited by Howard T. Korsner, M.D., Professor of Pathology, Director of the Institute of Pathology, Western Reserve University, Cleveland. Division on Immunology edited by Sanford B. Hooker, M.D., Professor of Immunology, Boston University School of Medicine. 623 pages. 136 illustrations. Fabrikoid. Price $3.00. The Year Book Publishers, Inc., Chicago, 1941.

This practical book sets forth clearly and briefly the relationship between pathology and immunology, so important for the cure and prevention of disease. The first half of the book describes the pathology of tissues and organs in their relation to transmissible diseases. The clinical application of this knowledge is given. In the second half of the book immunity in all its manifold relations to infectious diseases in normal and pathological physiology is set forth. Especially informative are the sections on shock, atherosclerosis, and the Rh factor in transfusion reactions.

—Will Shimer, M.D.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, May, 1943

Diseases	*May 1943*	*April 1943*	*March 1943*	*May 1942*	*May 1941*
Tuberculosis, Primary	25	18	15	3	1
Tuberculosis, Active	328	222	200	170	218
Tuberculosis, Arrested	72	11	10	25	.....
Chickenpox	370	507	442	363	247
Measles	2,248	2,103	1,356	875	5,116
Scarlet Fever	302	345	387	299	435
Smallpox	7	5	16	3	8
Typhoid Fever	8	.....	6	7	5
Whooping Cough	320	330	182	281	197
Diphtheria	23	16	20	11	38
Influenza	39	141	53	20	55
Pneumonia	70	48	78	47	90
Mumps	483	411	326	195	158
Poliomyelitis	1	2	.....	.....	1
Cerebrospinal meningitis	34	39	26	3	4
Rubella	320	1,347	898	156	330
Undulant Fever	8	8	1	1	2
Malaria	2	2	1	.....	2
Septic Sore Throat	2	.....	.....	1	.....

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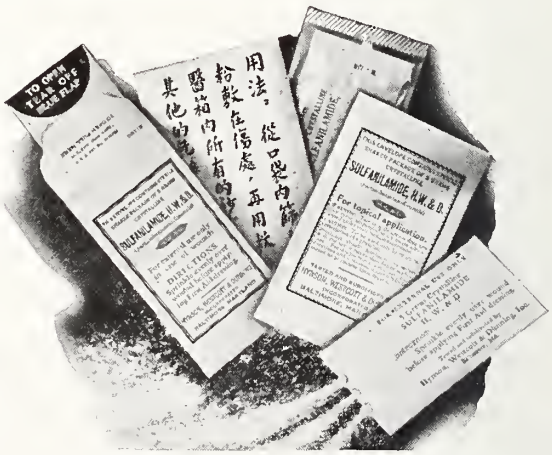

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ALLERGIC ASPECTS OF DERMATOLOGY *

S. WILLIAM BECKER, M.D.†
CHICAGO

Cutaneous disorders which always appear as a result of allergic hypersensitiveness, or may occasionally be attributable to such altered reactivity of the skin, constitute a considerable portion of cutaneous diseases. The subject is so extensive that it can be covered only in part during the allotted time, hence it will be necessary to eliminate certain phases, important though they are. Medicamentous eruptions, which have assumed great significance as the result of adoption of synthetic drugs in recent years, will not be discussed at this time.

One of the most important and at the same time one of the most confused fields of medical endeavor is constituted by a group of common cutaneous disorders which have, at least in some instances, a more or less remote connection with truly allergic states. By the use of the term "allergic" the physician is able to exert a strong influence on his patients, and demonstration of one or more positive skin tests is apt to sell the patient on the idea of elimination of offending substances or injection of purified proteins for the purpose of increasing his tolerance to some substance to which he supposedly is hypersensitive. The patient's enthusiasm persists only until the failure of such treatment starts him wondering whether this specialty called "allergy" is all that it is represented to be, as far as diseases of the skin are concerned.

ALLERGY

The term "allergy" was coined by von Pirquet to designate the more rapid and intense tissue reactivity after previous injection of antigenic substances, as illustrated by tubercle bacilli in the Koch phenomenon. This discovery by Koch was later followed by study of cutaneous disorders to determine whether any of them could be classified as allergic. It was found that certain varieties of tuberculous lesions of the skin, namely, the tuberculids, fulfilled the requirements to be so designated. Late syphilids and some pyogenic lesions also may be included. One of the chief characteristics of an allergic cutaneous infection is that the resulting scar is atrophic and noncontractile. The atrophic plaques which follow lupus erythematodes might also conceivably be considered evidence that this disorder should be placed in the allergic group. Demonstration of allergic reactions in the blood vessels of patients with acute lupus erythematodes is also suggestive.

As the allergic aspects of hay fever and asthma came to be recognized, it was noted that certain diseases of the skin were associated with such conditions in a sufficiently high percentage of cases that they could scarcely be considered coincidental. These conditions had been included in the groups of dermatitis venenata and eczema. Dermatitis venenata was used to designate all cutaneous disorders due to external irritants, without considering whether or not the patient was hypersensitive to the offending agent. The older eczema included all sorts of eruptions for which no apparent cause could be discovered. Because of the frequent association of such eruptions with truly allergic hay fever and asthma, it was not illogical to perform various kinds of cutaneous tests to determine whether or not the skin was hypersensitive to any allergens, in the hope that information so gained could be utilized in therapeutic procedures. This service, performed by allergists and allergically-minded dermatologists, has been of inestimable help in distinguishing the different types of dermatitis. Interestingly enough, however, their efforts have shown that

* Read at the Fort Wayne Medical Society, Fort Wayne, March 3, 1942.

† From the Section of Dermatology, School of Medicine, University of Chicago.

most of the eruptions mentioned are *not* of an allergic nature. Still, considerable light has been shed on the underlying processes of some of the common but resistant skin diseases.

EPIDERMAL TEST

The simplest type of cutaneous test and the one most easily carried out is the "patch test," whereby material is placed directly on the skin and covered with an occlusive dressing. This test is applicable only where an external irritant is considered causative. Dermatitis due to an external irritant[1] is characterized in its acute stage by erythema, edema, vesiculation, oozing and crusting. The subacute stage is ushered in by scaling, while the signs of chronicity are thickening, lichenification, fissuring, hyperpigmentation and scarring. The essential lesion of acute dermatitis of external origin is the vesicle. A characteristic feature of the eruption is its diffuse distribution. A patchy eruption is not apt to have been caused by an external irritant. Owing to the looseness of the tissues of the eyelids and adjacent regions, edema produces a severe degree of swelling, a prominent feature of external irritant dermatitis of the face. The only other cutaneous disorders which cause pronounced edema of the eyelids are angioneurotic edema, which usually lacks erythema, and an infectious process near the eye.

While the eruptions due to external irritants are usually diffuse, under certain circumstances the irritating material is applied irregularly, so that an irregular eruption results. However, the fundamental features of the condition remain the same, namely, erythema, edema, vesiculation, oozing and crusting, limited to the actual sites of contact with the offending material. Certain substances have been the greatest offenders in this regard. An eruption due to poison ivy is apt to be patchy, often in the form of linear arrangement, in areas where the skin has stroked the leaf. Dentists may show patchy eruptions caused by local anesthetics to which they are hypersensitive, such as butyn or procaine. As they inject the material into the oral tissues some of the substance is squirted back onto the hand, producing dermatitis at the points of contact. A more recent cause of patchy dermatitis has been nail polish. The eruption occurs on the neck and face, including the eyelids, and other parts of the body touched repeatedly by the patient's finger tips. While there may be some confusion with other forms of dermatitis, the nature of the individual patches establishes the diagnosis. Presence of hypersensitiveness is verified by the patch test.

The incidence of dermatitis due to external irritation is greater in occupations and industry[2] than in ordinary life. The importance of this occupational and industrial hazard is so great that the United States Public Health Service has several physicians who devote full time to investigation and evaluation of the various problems present in the occupations and industries of the nation. A committee of consultant dermatologists has recently been appointed to assist in this work. The American Medical Association has a committee on industrial medicine on which a dermatologist has served. While instances of eczema resulting from simple chemicals such as mercury, nickel, arsenic, et cetera, are still seen, the greatest problem at present is presented by various synthetic substances, the use of which has become popular in recent years. Efforts are constantly being made to substitute nonsensitizing materials for those which are so apt to result in production of dermatitis. Certain compounds, such as the nitroso-compounds, are known to sensitize more individuals than other substances.

If a patient has had specific eczema for a relatively long time, the cutaneous tissue may become altered, so that it now reacts to more simple ubiquitous substances, such as soap and water. The eruption has now become nonspecific. In severe eruptions sufficient material from broken-down cells may be absorbed into the blood stream to produce a generalized toxic eruption, which may be erythematous or eczematoid.

In the performance of the patch test the offending material is placed on a small area of the skin of the back or arm which has never been involved in the eruption and is covered by an occlusive dressing.[3] An identical eczematous eruption appears at the site of application, usually within forty-eight hours, proving that the skin is hypersensitive to this particular material. A positive patch test does not always indicate that the substance has been the one which has caused the eruption, since a person who is hypersensitive to one substance is practically always hypersensitive to others as well. However, a positive test gives a clue which may be followed up. The hypersensitive layer of the skin in dermatitis produced by external irritants is the epidermis. Since the skin has been sensitized by this contact, the altered state has been justly called epidermal allergy. In order to differentiate such dermatitis as due to hypersensitiveness, it is called eczema, while the same variety of eruption produced by a substance to which most individuals would react is called dermatitis venenata. This limitation of the use of the term "eczema" for a certain variety of dermatitis with the element of hypersensitiveness originated with the European dermatologists, Bloch and Jadassohn. It at least has the merit of signifying one certain condition, whereas as formerly utilized it meant

[1] Becker, S. W., and Obermayer, M. E.: Modern Dermatology and Syphilology, Philadelphia, J. B. Lippincott Company, 1940.

[2] Schwartz, L. and Tulipan, L.: Occupational Disease of the Skin, Philadelphia, Lea and Febiger, 1939.

[3] Sulzberger, M. B.: Dermatologic Allergy, Springfield, Illinois, C. C. Thomas, 1940.

a great many morphologic pictures with dubious causation.

In case an eruption is severe or extensive it is advisable to defer patch testing until it has subsided. If a positive test is elicited during the height of the eruption, aggravation may result.

Even though the aforementioned eczematous eruption is usually caused by a substance acting at the cutaneous surface, it should be recognized that it is the epidermis which is hypersensitive and that offending substances may reach it in other ways, namely, via the blood stream and from within the skin itself. For instance, one of our patients who first appeared with eczema of the scalp and face produced by a quinine-containing hair tonic was seen later with the same clinical picture after taking quinine tablets by mouth. The quinine was carried to the epidermis by way of the blood stream. Another substance which may act both externally and internally is ephedrine. A common offender which lives in the devitalized portions of the skin, namely, the stratum corneum, the nail plates and the hair, is fungus. Certain fungi elaborate allergens to which the epidermis becomes sensitized and subsequently reacts in the form of a vesicular, eczematoid eruption. This eruption is confined almost solely to the feet. If the plantar vesicular eruption is sufficiently intense, the allergen, known according to the organism as trichophytin, et cetera, is absorbed into the blood stream, is carried to the palms and produces an allergic "id" eruption.[4] Verification of such a diagnosis is made by the finding of a severe vesicular eruption on the feet, identification of fungous elements in the roofs of the vesicles and eliciting of a positive patch test to trichophytin. The finding of fungi in macerated epidermis between the toes or in a nail is not conclusive evidence, nor is the finding of a positive dermal test to trichophytin sufficient to warrant diagnosis of a vesicular eruption of the hands as a trichophytid.

DERMAL TEST

The second type of cutaneous test is the test for dermal hypersensitiveness, in which purified proteins are placed in contact with the dermis. This maneuver may be carried out by the "scratch test," in which short incisions are made just through the epidermis and the material is rubbed into the lesions so produced. A second way of inserting material into the dermis consists of injection of a solution of protein by means of a fine needle, the so-called "intradermal test." A positive dermal test (either scratch or intradermal) is characterized by the appearance of a wheal at the site, usually within fifteen or thirty minutes. It is important that the significance of the positive epidermal and dermal tests be thoroughly understood. The patch test is only of value in testing for epidermal hypersensitiveness, while the dermal tests are of use only for testing dermal hypersensitiveness.

The eruptions which were found in association with allergic hay fever and asthma were those which have previously been included in the older eczema, in addition to urticaria and angioneurotic edema. Patch tests are always negative, demonstrating the absence of epidermal allergy. On the other hand, scratch or intradermal tests are often positive. In the case of urticaria and angioneurotic edema the performance of dermal tests is made difficult and often impossible because of the presence of dermographism, with a resulting wheal at the site of injections of any sort. In such cases, if allergic studies are indicated the passive transfer reaction of Prausnitz and Küstner may be employed. One-tenth cc. of blood serum from the patient is injected into several areas on the skin of a nonallergic individual. After an appropriate interval, usually twenty-four hours, purified protein extracts are injected into the same sites. A positive test is characterized by the appearance of a wheal.

During infancy and childhood the dermal reactions are often positive to foods, while in adult life reactions to foods are almost never seen. However, positive tests are obtained to a variety of substances, including tobacco, silk, house dust, molds and others. If the patient has pollen hay fever or asthma, positive reactions are often obtained to pollen extracts. Positive tests to pollens are sometimes obtained even when clinical symptoms have not yet appeared. If positive tests have been obtained, efforts have been made to utilize this knowledge in treatment regimes. Foods have been eliminated, the patient has been protected against contactants, and injections of proteins have been made in the hope that tolerance could be increased. The results have been beneficial in only a small percentage of instances, probably less than 10 per cent, so it must be concluded that, by and large, the dermatoses are not of an allergic nature even though the patients do possess dermal allergy. This latter condition has been proved beyond doubt by the positive dermal tests.

RESEARCH STUDIES

If the common cutaneous disorders cannot be proved to be allergic, what is their nature? In an attempt to answer this question several research projects have been carried out at the University of Chicago Clinics during the past fourteen years. The first study[5] was made on two hundred four patients with what we have

[4] Becker, S. W.: Diagnosis and Treatment of Vesicular Eruptions of the Hands and Feet, *Nebr. State M. J.*, **26**:419 (Dec.) 1941; Diagnosis and Treatment of Vesicular and Vesiculopustular Eruptions of the Hands and Feet, *Mich. State M. J.* (Feb.) 1942.

[5] Becker, S. W.: Dermatoses Associated with Neurocirculatory Instability, *Arch. Dermat. & Syph.*, **25**:655 (April) 1932.

come to designate as functional cutaneous disorders, since no organic basis can be demonstrated, many of which were formerly included in the older eczema and are still considered by some to be allergic in origin. The patients were found to have low blood pressures and low basal metabolic rates. They were also found to be members of families containing individuals of the energetic, ambitious type, and persons with functional and allergic diseases. On the basis of failure to demonstrate organic cause for the cutaneous disorders and certain positive findings, to be discussed later, they have been called the neurodermatoses.

The second study was carried out by van de Erve,[6] utilizing the functional methods of Petersen and related technics. Eighty patients with the neurodermatoses were studied. Psychomotor panel revealed in the intellectual phase a definite trend to an alertness and quickness of comprehension and mental activity. The patients excel in ability to learn, capacity to plan, attitude to rights of others, and to reality. Neuromuscular activity and excitability are greatly increased. A majority of them are restless and dissipate their energy. They tend to be timid, very suggestible, touchy, changeable and quick; they are generous to a fault and altruistic. Emotional instability is expressed in worry and brooding rather than in transient emotional storms. Climatic factors, previously emphasized by Petersen of Chicago and Mills of Cincinnati, were verified in that incidence of the diseases was higher and recurrences took place predominantly in the winter months. The patients had low blood pressures, a finding previously recorded, and pulse pressure after subcutaneous injection of epinephrine was abnormally increased in all patients. These findings and those of other investigators verified the tendency of the patients to over-react to all stimuli, internal and external.

An observation which was made in both studies, and one which we believe is of paramount importance, was that practically all of the patients never became fatigued. The term "fatigue" is used here as a sensory phenomenon in contrast to exhaustion, which is a process taking place in tissues, especially the muscles. We have come to interpret the conditions to the patients as representing a perversion of the sense of fatigue, which they usually accept since they rarely if ever get tired.

Our next study[7] consisted in routine use of both patch and scratch tests in a series of one hundred two patients with functional dermatoses. Patch tests to seventy-four common allergens were always negative, which is presumptive if not conclusive evidence that epidermal hypersensitiveness to external irritants has not been a causative factor in the production of the disease. This study has exploded the myth of the external component of the older "eczema." It is, of course, impossible to test the patient to all substances which might be responsible for an irritant dermatitis because of their great number, but if external factors were causative one would expect to elicit at least an occasional positive reaction. In evaluation of the causative role of external irritants, it is of prime importance that the material used in the tests be placed on normal skin, preferably on an area which has never been involved in dermatitis. The reason for this caution is as follows: If the skin is involved in dermatitis or has been so involved within a short time, the normal protective coats, the stratum corneum and stratum granulosum, are no longer intact and will permit penetration of the chemical substance through this barrier into the dermis. If the dermis happens to be hypersensitive to the substance, inflammatory reaction will result in the form of erythema and edema, but not characterized by erythema, edema, vesiculation, oozing and crusting as is seen in the epidermal reaction.

When dermal tests are performed on patients with functional cutaneous diseases the findings are otherwise. The same one hundred and two patients were studied by scratch tests to the seventy-four common allergens. Forty-seven per cent, or almost one-half of the patients, showed positive reactions. Thirteen per cent were positive to only one substance, and thirty-four per cent were positive to several substances. The same statement may be made relative to dermal reactions as has already been given in reference to epidermal reactions, namely, polysensitiveness is the rule rather than monosensitiveness. When the positive dermal reactions are considered there is a great difference of opinion relative to their practical significance. The dyed-in-the-wool allergists often maintain that such reactions give a clue to the cause of the cutaneous disorder from which the patient suffers, while the dermatologist maintains that they seldom give a clue, and only represent tangible signs of the patient's protoplasmic instability. On one point there is absolute agreement, namely, that at the time the test was performed the dermis was hypersensitive to the offending substance. However, this fact gives no assurance that it will remain so, since identical examination several months later in some of our patients showed that only the strongly positive reactions persisted; the weakly positive reactions were often no longer evident, but other mild reactions had taken their places. It was also found that the longer the patient had had dermatitis, the more apt he was to have positive dermal tests. In patients with a history of infantile eczema, twenty-one out of twenty-seven, or 78 per cent, showed positive scratch tests. Increased incidence

[6] van de Erve, J. M., and Becker, S. W.: Functional Studies in Patients with the Neurodermatoses, *J. A. M. A.*, **105**:1098 (Oct. 5) 1935.

[7] Obermayer, M. E.; Becker, S. W.; Praver,, L. L.; Shaw, C., and Becker, F.: Epidermal and Dermal Hypersensitivity in Patients with Functional Dermatoses, *Arch. Dermat. & Syph.* **34**:411 (Sept.) 1936.

of dermal reactions in patients who have had infantile eczema may be explained in two ways: first, the patient may have been born with a more unstable protoplasm, one manifestation of which is the positive dermal test, and secondly, persistence of dermatitis with the relatively "open" skin for many years may have permitted absorption of allergens and consequent sensitization of the dermis.

Our fourth study[8] consisted of determination of the environmental and emotional background as a causative role in the precipitation of the functional skin diseases. The social element in the precipitation and aggravation of functional diseases has been emphasized by Minot, Canby Robinson, Rappleye and others. Social study of fifty patients with the neurodermatoses elicited social factors in thirty-six, and two had had infantile eczema. Of the fifty controls, only seven associated the onset of the disease with change in the social status, and among the seven diagnoses were lupus erythematodes, an allergic manifestation; psoriasis, which has a certain functional element; and acne vulgaris, which has at times been reported to have been aggravated by exhaustion. A study of the total cost of medical care for all illnesses up to the time of interview of patients with functional diseases varied from "no cost" up to $3,000, with an average of $247. For the patients with organic skin diseases the cost varied from "no cost" up to $550, with an average of $56. The cost of medical care, therefore, has been over four times as great for patients suffering from functional diseases as for those with organic diseases.

There are two principal types of dermatitis which have been considered as allergic, an idea which has not been verified by critical study. For this reason they are usually called the exudative and dry varieties of neurodermatitis and are included in the large group of functional diseases. In infancy the eruptions are still designated "infantile eczema," because of usage and because the conditions are as yet not completely understood. The heretofore imperfect understanding has resulted in part from the fact that a single individual seldom has the opportunity to follow the patients from the inception of the disease throughout life. Infantile eczema is usually first seen and treated by the pediatricians, with the allergists and dermatologists participating in the study and management of the cases in a few instances, especially if they prove to be resistant. After the child has passed through puberty he is seen by the dermatologist and occasionally by the allergist. There is now a tendency to believe that the skin disease in infancy is not particularly different from that in adult life, so that the dermatologist is being given an opportunity of at least sharing in the management during childhood. This procedure will enable a single person to follow a larger number of patients throughout life, with consequent better understanding of the cutaneous disorder. Of the four varieties of infantile eczema, namely: exudative, dry, infectious and ichthyotic, we are interested primarily in the exudative and dry varieties, since they run true to form in case they persist into adult life or disappear in infancy and recur later.

The exudative variety of infantile eczema may have its onset shortly after birth, is characterized by appearance of exudative plaques, often on the cheeks, arms and legs and later on the body. The children may be somewhat overweight; the eruption may be only mildly, occasionally severely, pruritic. Dermal tests, performed by the scratch or intradermal technics, are apt to be positive, especially to foods, and ingestion of certain foods may aggravate the eruption. This hypersensitiveness to foods may be carried into adult life in rare instances, always, however, confined to the exudative type of the disease. The dry type of infantile eczema appears a few months later in life, is characterized by isolated patches of nonexudative dermatitis, which are more pruritic than the exudative type. Here too, dermal reactions are apt to be positive, even to foods, but ingestion of these foods rarely if ever aggravates the eruption. The same factor applies to adults; it is infrequently, and then only in severe generalized eruptions, that foods are instrumental in increasing the severity of the condition. In adults the eruptions are known as neurodermatitis, although they were formerly included in the "eczema" group. In childhood and in adult life the eruption is localized predominantly at the flexures of the elbows and knees, then on the neck, face and in other areas. In adult life, too, the dermal tests are apt to be positive, not, however, to food proteins, but to other substances. Since the condition is often associated with an allergic phenomenon, or to its stepchild, an atopic phenomenon, the disease has often been called allergic or atopic dermatitis. This designation has created the idea that the eruption itself has been caused by hypersensitiveness, a conception that has not been borne out in practice. The patients all show signs of nervous instability and exhaustion, but do not all show definite signs of allergy or atopy. It seems more logical, therefore, to designate the eruption as neurodermatitis rather than allergic or atopic dermatitis. Much study must still be made in order to solve this problem.

TREATMENT

The treatment of allergic eczema consists in the acute stage of mild applications. If the eruption is vesicular or exudative, wet dressings are appropriate. Potassium permanganate (1:8,000), prepared by dissolving a one-grain tablet in a pint of water, is the best all-service wet dressing. Aluminum subacetate in a one-half per cent solu-

[8] Hiett, Elizabeth G., and Petersen, Ruth J.: Social and Emotional Factors in One Hundred Dermatology Patients, (M. A. Thesis) University of Chicago (1936).

tion is also efficacious. It should be used in pure form and not in the form of Burow's solution, which is usually made from lead subacetate and alum. For some reason this solution may at times be very irritating, while the pure substance is well tolerated. After the acute stage has passed, a mild ointment, such as a paste containing one-half per cent phenol and one-eighth per cent menthol, is usually well tolerated. If the eruption is caused by fungi, parasitical remedies are added only after the acute stage has passed. It is only rarely that a chronic eruption of this type is observed.

In addition to palliative local therapy, specific therapy may be considered, to be used at the appropriate time. Shelmire has demonstrated that oral or subcutaneous administration of poison ivy extract is efficacious in so altering the patient's reactivity that he will no longer break out on exposure to the offending substance. It has also been shown in treatment of pollen eczema that injection of extract of ragweed or associated pollens will so alter the patient's reactivity that he will have little or no dermatitis during the pollen season. Attempts to increase the patient's tolerance to chemical irritants by injections have not only been unsuccessful, but have at times produced severe generalized eczema.

In treatment of dermatitis of internal origin, there are two lines of attack in a solution of the problem and consequent relief of the patient. The most popular at the present time, but the least efficacious, is to consider the eruptions as truly allergic, to carry out allergic studies, which are usually positive, and to attempt to relieve the patients by the standard methods used in the relief of allergic disease. These constitute removal of offending foods and inhalants and injection of proteins to which the dermis has been found to be hypersensitive. The results from this mode of attack have been disappointing. Associated allergic hay fever and asthma may be relieved, but the dermatitis goes merrily on in spite of the treatment. The second line of approach, and that carried out by the dermatologists, consists, first of all, of measures for relief of the symptoms, foremost among which is intense itching. Treatment is carried out by protecting the skin by appropriate local applications, which should be, first, protective, and secondly, antipruritic and vasoconstrictive, and, third, the judicious use of roentgen rays. The second method of attack is toward remedying social and climatic factors in the form of re-education of parents and the patient, providing the latter is near or has reached the age of co-operation. The third and most important procedure is the correction of the nervous exhaustion, with which all such patients suffer, by regulation of activities, mild temporary sedation, daily nap and daily exposure to ultraviolet irradiation, and adequate vacations, spent preferably away from the parents. It is only when these measures fail, and they do fail occasionally, that allergic studies are indicated.

COMMENT

The very intangibility of the field under consideration magnifies the difficulties inherent in evaluation. The tangibility of the positive skin test has placed unwarranted importance on it in the minds of both patients and physicians. From the practical standpoint, however, our studies and those of other workers have pointed out a logical procedure in the management of patients with functional cutaneous disorders. If the dermatosis does not obviously fall in the organic groups comprising prenatal disorders, infections, infestations and neoplasms, the patient should first of all be subjected to dermatologic study and symptomatic treatment. These endeavors can best be carried out by the dermatologist by virtue of his training. Symptomatic treatment makes the patient comfortable during the period of investigation. The differences in the clinical picture of dermatitis caused by external irritants and that due to internal causation can be readily appreciated. In case the latter is diagnosed, measures designed to remedy social difficulties and relieve nervous exhaustion are instituted, usually with rather prompt benefit. In case such measures fall short of producing the desired therapeutic result, allergic studies may be instituted and any information so garnered may be utilized in amplifying the treatment measures.

CONCLUSIONS

Truly allergic diseases of the skin consist, first of all, of infections (syphilitic, tuberculous, or pyogenic), to the causative agent of which the patient is allergic. The treatment of these conditions consists of efforts against the causative organisms. In case of the tuberculids, removal of foci of infection is important, to be followed by general measures for the treatment of tuberculosis, namely, rest and ultraviolet irradiation therapy.

Performance of patch and scratch or intradermal tests by allergists and dermatologists has been of great value in identification of epidermal and dermal hypersensitiveness. A positive patch test signifies true epidermal allergy. Positive dermal tests furnish clues which are of value in the management of the occasional eruptions which do not respond to dermatologic therapy.

Exudative and dry infantile eczema with their counterparts in later life, namely, exudative and dry neurodermatitis, respond better to dermatologic therapy than to allergic management. The latter should be instituted in case the former fails or is only partially effective.

Urticaria and angioneurotic edema are at times truly allergic, at other times on a nervous-exhaustion basis. Unless a definite history is obtained of focal infection, injection of biological medication, or ingestion of an offending food, urticaria responds better to routine dermatologic management than to allergic management. This statement applies particularly to the chronic recurrent eruptions.

Therapy consists first of measures for sympto-

matic relief, secondly, of efforts to relieve nervous exhaustion, and thirdly, of allergic procedures.

A great deal of co-operative study by dermatologists, pediatricians and allergists will be necessary for complete solution of the problem of allergic diseases of the skin.

INTRADERMAL VACCINE THERAPY IN BRUCELLOSIS

DAN L. URSCHEL, M.D.
MENTONE

The presentation of results from a small series of cases is not scientifically sound unless such results are evaluated carefully. However, there are times when it seems wiser to present the results of a few cases where a new method of treatment is concerned than to wait until the series is large enough to be scientifically sound. Presentation of a new concept of therapy opens new channels of approach to the disease as a whole. In brucellosis, there has been almost no progress for the past ten years. Or rather, it might better be stated that the past ten years have seen a constant re-evaluation of previously presented methods. Since Huddleson, Johnson, and Hamann[1] presented their work on the opsonocytophagic index, in 1933, almost all of the published work has been concerned with evaluation of this and other tests. At the time of that publication Huddleson felt that immunity in brucellosis could be accurately determined by combining the result of the skin reaction and the opsonocytophagic index. The past ten years has shown some change in this opinion. He recently said, "Although the demonstration of specific antibodies in the blood serum or specific skin sensitivity in normal human beings cannot be considered as the final and always certain means of detecting those who are actively immune to brucellosis, they will have to be accepted and utilized for what they are worth until the real indicator of active immunity can be discovered."[2] It is with the hope that intradermal vaccine therapy may bring some additional information to the complex problem of immunity in brucellosis that this paper is published.

HISTORICAL FEATURES

Burnet[3] first reported the use of an intradermal reaction in the diagnosis of undulant fever. He used a broth filtrate of brucella organisms, rather than a suspension of the killed organisms themselves, and felt that the reaction was conclusive in the diagnosis of the disease. However, other workers were unable to get similar results, using the broth filtrate. Giordano[4] reported work with an intradermal test, using a killed organism suspension of Brucella abortus. Sensenich and Giordano[5] had earlier reported specific skin reactions in known cases of undulant fever when salt suspensions of heat-killed organisms were injected intradermally. The specific character of the skin reaction has been disputed, but it is now accepted that a positive skin reaction is an indicator of past or present exposure to brucella organisms. The patient may give no history of any febrile illness suggestive of undulant fever. This is particularly true among laboratory workers, veterinarians, and farmers who have had repeated contact with infected material or with cultures of living organisms over a number of years. Morales-Otero[6] has shown that human beings may contract the disease through the skin. Hardy, Hudson, and Jordan[7] demonstrated this fact by animal experimentation. Fleischner and Meyer[8] were unable to prove in a series of seventy-five infants who were fed on milk with a high content of B. abortus that any hypersensitivity of the skin developed. In guinea pigs, however, they showed that infection with B. abortus always produced cutaneous hypersensitiveness. This brings up an interesting point in the whole immunologic picture of brucellosis. Inasmuch as infants and children would have the highest possible incidence of exposure to brucellosis through diet, it has always remained a puzzling fact that the disease was very rare in infancy or early childhood. This is also true in veterinary work where young animals seldom contract the disease.

Despite the disputable points, there seems no doubt that the intradermal skin reaction is of value in the diagnosis of brucellosis. Many series have been published, totalling thousands of skin

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[1] Huddleson, I. F.; Johnson, H. W., and Hamann, E. E.: Study of the Opsono-cytophagic Power of the Blood and Allergic Skin Reaction in Brucella Infection and Immunity in Man, *Am. J. Pub. Health*, **23**:917-929, (Sept.) 1933.

[2] Huddleson, I. F.: Immunity in Brucellosis, *Bacteriological Reviews*, **6**:111-142, (June) 1942.

[3] Burnet, E.: Sur un noveau procede de diagnostic de la fievre mediterraneene, *Comp. rend. Acad. D. Sc.*, **174**: 421, 1922.

[4] Giordano, A. S.: Brucella Abortus Infection in Man, *J.A.M.A.*, **93**:1957-58, (Dec. 21) 1929.

[5] Sensenich, R. L., and Giordano, A. S.: Brucella Abortus Infection in Man, *J.A.M.A.*, **90**:1782-1786, (June 2) 1928.

[6] Morales-Otero, P.: Experimental Infection of Brucella Abortus in Man, *Puerto-Rico J. Pub. Hc. & Trop. Med.*, **6**:3, 1930.

[7] Hardy, A. V.; Hudson, M. G., and Jordan, C. F.: The Skin as a Portal of Entry in Brucella Melitensis Infections, *J. Inf. Dis.*, **45**:271, 1929.

[8] Fleischner, E. C., and Meyer, K. F.: The Bearing of Cutaneous Hypersensitiveness on the Pathogenicity of the Bacillus Abortus Bovinus, *Am. J. Dis. Children*, **16**:268, 1918.

tests, and the reported results seem to vary directly with the degree of exposure.[2,9,10,11,12,13,14,15,16,17]

IMMUNOLOGIC CONSIDERATIONS

To my knowledge vaccine prepared from the brucella organisms has not been used therapeutically by the intradermal route. At least I have found no reference to it in an extensive literature review, up to February, 1943. It may have been tried and not reported, or publications on the subject may have escaped my attention. It does seem odd that some work has not been done along this line. The use of various vaccine preparations intradermally has received considerable attention. The function of the skin as an immunologic agent is generally accepted, although the importance of the reticuloendothelial cells in the skin, as compared to those in other parts of the body, has not been satisfactorily determined.

Kolmer and Tuft[18] say, "Administration of vaccine by the intracutaneous route is to be preferred whenever possible." They base this conclusion upon the work of Tuft and his associates,[19,20] who worked with typhoid fever, and demonstrated the fact that vaccine given by the intracutaneous route, "with one tenth the dose produces a better and more lasting response than all the other routes, except the intravenous, although the antibody titre after the latter route was not as lasting." Kolmer and Tuft also report experimental work in lower animals where the intracutaneous route seems to induce a better degree of immunization. They also report its use to some extent in diphtheria and scarlet fever immunizations.

The nature of immunity in brucellosis is not known. By various laboratory procedures, we are able to determine the presence of many different antibodies, such as the agglutinins, opsonins, complement fixing reagins, et cetera. Whether these are the antibodies directly concerned with immunity and with resistance to infection remains unproved. Huddleson says, "In the light of our present knowledge, it appears that the commonly-known brucella serum antibodies are by-products arising from the reaction between antigen and body tissues, and have no proved function in the active immunity mechanism." However, at the present time these measurable brucella antibodies remain as our only indices of immunity, and we are forced to draw our conclusions from them.

If brucellosis is considered as a disease in which the host resistance is often imperfectly organized, thus producing a state of chronicity or recurrence of infection, then any method of therapy, particularly in the chronic phases, must be directed toward increasing the agents of resistance. It has been repeatedly proved that the intradermal injection of heat-killed vaccine or brucellergen will cause the appearance of agglutinins and opsonins in the blood of normal people. It has also been proved that the titre of an already positive agglutination reaction will be increased in a high percentage of cases after a single intradermal injection.[21,22,23,24,25,26] In 1928, in a preliminary report on the intradermal reaction in brucellosis, Giordano said, "On re-testing in all of the control cases in which there was previous negative agglutination reaction, agglutinins developed in 70 per cent of them and were still present six months later. Another observation worthy of consideration is the raising of the serum titre in nearly all of the positive cases. This may be of importance in the consideration of vaccine therapy."[27]

From the volume of this work there seems no doubt that intradermal injections of brucella vaccine or brucellergen will cause the development of specific antibodies in the blood stream of the patient. The unproved part of this hypothesis is

[9] Angle, F. E.; Algie, W. H.; Baumgartner, L., and Lunsford, W. F.: Skin Testing for Brucellosis in School Children, *Ann. Int. Med.*, **12**:495, (Oct.) 1938.

[10] Angle, F. E., and Algie, W. H.: Chronic Brucellosis; An Analytical Study of the Positive Reactors Among School Children, *Ann. Int. Med.*, **12**:1189, (Feb.) 1939.

[11] Lewin, J. R., and Gersh, I.: Immunologic Reactions for Undulant Fever in Apparently Healthy and in Tuberculous Children, *J. Ped.*, **12**:571, (May) 1938.

[12] Gersh, I., and Mugrage, E. R.: The Incidence of Postive Immunologic Reactions for Undulant Fever, *J. Lab. and Clin. Med.*, **23**:918-921, 1938.

[13] Manchester, R. C.: The Clinical Manifestations and Diagnosis of Chronic Brucellosis, *Ann. Int. Med.*, **16**:950-965, (May) 1942.

[14] Evans, A. C.; Robinson, F. H., and Baumgartner L.: Evaluation of Diagnostic Laboratory Tests in Chronic Brucellosis, *U. S. Pub. He. Rep.*, **53**:1507, (Aug. 26) 1938.

[15] Keller, A. E.; Pharris, C., and Gaub, W. H.: Undulant Fever; Comparative Value of Certain Diagnostic Tests, *So. Med. J.*, **31**:1, (Jan.) 1938.

[16] Levin, W.: Intradermal Test as an Aid in the Diagnosis of Undulant Fever, *J. Lab. & Clin. Med.*, **16**:275, 1930.

[17] Yeckel, H. C., and Chapman, O. D.: Brucella Infections in Man—The Intradermal Reaction as an Aid in Diagnosis, *J.A.M.A.*, **100**:1855, (June 10) 1933.

[18] Kolmer, John, and Tuft, Louis: Clinical Immunology Biotherapy and Chemotherapy, W. B. Saunders Co., 1941.

[19] Tuft, Louis: Active Immunization Against Typhoid Fever, with Particular Reference to an Intradermal Method, *J. Lab. & Clin. Med.*, **16**:552, 1931.

[20] Tuft, L.; Yagle, E. M., and Rogers, S.: Comparative Study of the Antibody Response After Various Methods of Administration of Mixed Typhoid Vaccine, with Particular Reference to Intradermal and Oral Methods, *J. Inf. Dis.*, **50**:98, 1932.

[21] Meyer, K. F., and Eddie, B.: Lab. Infections Due to Brucella, *J. Inf. Dis.*, **68**:24, 1941.

[22] Huddleson, I. F.: Brucellosis in Man and Animals, Commonwealth Fund, 1943.

[23] Kirby, W. M. M., and Rantz, L. A.: The Agglutinin Response of Normal Persons to Skin Tests with Brucellergin and Brucella Vaccine, *J. Lab. & Clin. Med.*, **27**:1244-1248, (July) 1942.

[24] Goldstein, J. D.: Cutaneous Reactions in the Diagnosis of Undulant Fever, *J. Clin. Invest.*, **13**:209, 1934.

[25] Heathman, L. S.: A Survey of Workers in Packing Plants for Evidence of Brucella Infection, *J. Inf. Dis.*, **55**:243, 1934.

[26] Evans, A. C.: Studies on Chronic Brucellosis—Description of Techniques for Specific Tests, *Public Health Reports*, **52**:9, 1937.

[27] Giordano, A. S.: Undulant Fever, *J. Ind. State Med. Assn.*, **22**: (Apr. 15) 1929.

the significance of these demonstrable antibodies in resistance to infection. However, even if we do not feel that agglutinins, opsonins, et cetera, are the specific agents responsible for immunity, we must conclude that they are in some way concerned with immunity. Therefore, any method of therapy which will cause an increase in these antibodies in the circulating blood should, perforce, be accompanied by an increase in resistance of the host to the brucella organisms. This is not an entirely secure position, however, because Angle[28] has shown in his acute cases that improvement was accompanied by a lowering and eventual disappearance of the agglutination titre. On the other hand, Kolmer, Bondi, and Rule[29,30] in experimental work on active immunization, with a mixed heat-killed vaccine of B. typhosus, brucella abortus, and brucella melitensis have taken the agglutination reaction, the blood opsonocytophagic index, and the mouse serum protection test as their indices of the development of immunity. Tschertkow and Belsgowskaja[31] showed that skin reactivity and antibody of the tissues may vary independently. The fact remains that we are now concerned with measures for the increase of host resistance, and, in this small series of cases vaccine given by intradermal route has given satisfactory clinical response.

METHOD

In these cases, a mixed heat-killed stock vaccine was used. The full-strength vaccine contained one thousand million organisms each, Brucella abortus and Brucella suis, per cc. For skin testing this was diluted so that each cc. contained one hundred sixty-six million each suis and abortus organisms. Of this diluted preparation 0.1 cc. was used for the test, or sixteen million of each organism. This total number of organisms (33,000,000) is somewhat smaller than many of the authors report,[9,11,32,33] but the fact is well known that the reaction in the skin following intradermal vaccine is often severe, and it has been thought wise to use a relatively weak suspension of organisms for the first test. However, in cases where the first test is negative or only faintly positive, we have used stronger solutions in re-testing, just as is now done with tuberculin. The criteria for diagnosis of the disease have been discussed in a previous paper[34] and will not be reiterated at this time.

After the diagnosis has been made, therapy is started with intradermal injections at five- to seven-day intervals (in an occasional case at three- to five-day intervals). The vaccine is given on the forearm or on the medial surface of the thighs. Because of the amount of scarring which sometimes results, it is best to give the injections (in women) on the legs. The scarring which results from repeated intradermal injections of a potent bacterial product, into the same area of the skin, might be considered a disadvantage in this method of treatment. For that reason two illustrations are included in this article. Figure I shows the appearance of the forearm of a patient who is at the present time receiving active therapy and has had approximately thirty-five to fifty injections in this one area. Figure II shows the forearm of another patient eighteen months after cessation of therapy. He had received about the same number of injections and his arm at one time had looked like Figure I. It may be seen from this that the scarring which results is quite superficial and tends to disappear in time.

FIGURE I

Forearm of a patient receiving therapy at the present time.

Some may think that the method of therapy is too painful. However, this does not seem to be the case. None of the patients have objected to the intradermal injections, even though we have given as much as 0.7 cc. by this route. It is always given very slowly, with a tuberculin syringe and a twenty-six-gauge short bevel needle. By injecting it very slowly, the distress is minimized. In thin-skinned people it is sometimes difficult to get a true intradermal injection, but practice and proper care of needles will prevent difficulty.

[28] Angle, Fred E.: The Treatment of Acute and Chronic Brucellosis, *J.A.M.A.*, **105**:939, (Sept.) 1935.

[29] Kolmer, John; Bondi, A., and Rule, Anna: The Results of Active Immunization of Human Beings with a Mixed Heat-Killed Vaccine of B. Typhosus, Br. Abortus and Br. Melitensis, *J. Inf. Diseases*, **67**:258-267, (Nov., Dec.) 1940.

[30] Kolmer, John; Bondi, A., and Rule, Anna: Persistence of Antibodies One Year After Active Immunization of Human Beings With a Mixed Heat-Killed Vaccine of B. Typhosus, Br. Abortus and Br. Melitensis, *J. Inf. Dis.*, **70**:54-57, (Jan., Feb.) 1942.

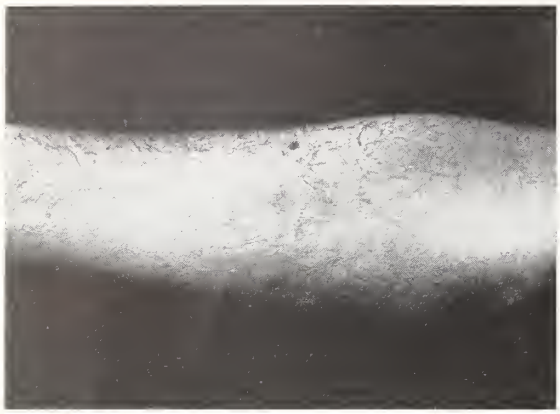
[31] Tschertkow and Belsgowskaja: *Ztschr.f. Immunitatsf.* **67**:475, 1930.

[32] Favorite, G. O., and Culp, C. F.: The Intradermal Test in Undulant Fever, *J. Lab. & Clin. Med.*, **20**:522, 1935.

[33] Keller, Alvin E.: Comparison of Skin Reactions Obtained by Use of Brucellergin and of Heated Brucella Organisms in Sensitized Individuals, *So. Med. J.*, **33**:1180-1184, (Nov.) 1940.

[34] Urschel, Dan L.: The Diagnosis of Chronic Brucellosis, *J. Ind. State Med. Assoc.*, **36**:59-63, (Feb.) 1943.

FIGURE II



Forearm of a patient eighteen months after cessation of therapy. He had received approximately the same number of injections as the patient in Figure I.

Increase in dosage is an individual matter, varying with each patient. I have tried to avoid local abscess formation and generalized systemic reaction. In some patients the hypersensitive state of the skin is such that only a very small dose of the vaccine can be given. I usually start with 0.1 cc. of the diluted vaccine, increase 0.05 cc. at a time for the first few doses, then if no marked reaction occurs, shift to the undiluted vaccine and increase fairly rapidly. I now go no higher than 0.5 cc. of the undiluted vaccine, although in earlier cases I did go to as much as 0.7 cc. The decision to use somewhat smaller amounts has been prompted by the difficulty in giving a larger amount intradermally, and by the fact that patients seem to get just as good results with smaller quantities.

The amount of therapy which constitutes sufficient dosage is as yet indefinite and must be individualized according to each patient. At this time we have no tests which constitute a sure index of cure, and for that reason termination of therapy must depend on clinical evidence. Improvement in strength, gain in weight, increase in hemoglobin, decrease in fever, et cetera, must all be considered. It may be that certain characteristic responses of the opsonic index may occur, but I have not done enough work on that to be certain at this time.

In this group of patients the average one received twenty intradermal injections of vaccine, and most of them were close to this average. There was considerable variation, however, one patient receiving eighty and getting excellent results.

It is of interest that hypersensitiveness has not increased in any of the patients. In other words, if we were able to build them up to, let us say, 0.3 cc. of the undiluted vaccine without systemic reaction and then get a systemic reaction with 0.35 cc., we could continue at 0.3 cc. indefinitely without getting into trouble. They did not become more sensitive. Baron and Brunner[35] showed that with Trichina hypersensitiveness could be developed as an allergic reaction. However, Coca[36] feels that the hypersensitiveness of infection is different in its nature from that of anaphylaxis. In regard to the development of skin reactivity, Chinn[37] has reported an interesting case. He performed three successive skin tests in an individual, all of which remained negative until the patient was given large doses of sulfanilamide, then the skin tests became positive, the blood agglutination became positive, and the patient recovered rapidly. Of course, there is a possibility that this was just a delayed skin reaction, as reported by January and Greene[38] and other authors. I have had one case in which the skin test did not become positive until the seventh day.

RESULTS

There has been no effort in this series of cases to merely "run a series." In other words, not all of the patients have been treated with intradermal vaccine alone. Some have been treated by subcutaneous vaccine, by a combination of both, or by other means. The statistical evaluation of the cases treated to date is covered in another publication.[39] Twenty-eight patients have received treatment by intradermal vaccine alone and three have had a combination of intradermal and subcutaneous vaccine. So far as the statistical end result is concerned, there seems to be no advantage in giving the vaccine by the intradermal route. However, in this instance the statistics do not tell the whole story. The three patients who received both subcutaneous and intradermal vaccine were first started on subcutaneous therapy, but were later shifted because of the appearance of severe systemic reactions. It was felt that the intradermal route presented a means of achieving good results with less possibility of severe systemic disturbance and with smaller dosage of the therapeutic agent.

In dealing with a condition which is so difficult to diagnose and to treat, a justifiable criticism is this: there is a definite psychogenic factor in all medication, often most prominent in medicines given hypodermically. I have sometimes wondered if the patients were really getting any better or were just thinking that they were better. To rule out this psychic factor as much as possible, I have done this: the original skin tests are done as part of a complete physical and laboratory examination, wherein the patient usually gets several intradermal tests, venipunctures, et cetera. He is not told what any of them are and is definitely led to believe

[35] Baron B., and Brunner, M.: Active Sensitization in Human Being with Trichina Antigen, *J. of Allergy*, **13**:459-466, (July) 1942.

[36] Coca, Arthur F.: Hypersensitiveness, Anaphylaxis, Allergy, Chas. C. Thomas (Pub.), 1931.

[37] Chinn, A. B.: Treatment of Case with Sulfanilamide, *Ann. Int. Med.*, **14**:921-924, (Nov.) 1940.

[38] January, L. E., and Greene, J. A.: Delayed Skin Test Reaction with Brucellergin, *J.A.M.A.*, **114**:486-487, (Feb. 10) 1940.

[39] Urschel, Dan L.: Brucellosis, a Report of Fifty-three Cases, with an Introductory Report of Intradermal Vaccine Therapy, *J. Ind. State Med. Assoc.*, **36**:294, (June) 1943.

that none of them are in any way therapeutic. A patient with chronic brucellosis almost always gets some physical improvement from the skin test alone, and it is not unusual to have these people come back volunteering the information that they are much better after the diagnostic tests, and are wondering why. This improvement after skin tests is not only my observation, but has been observed by almost every worker in the field. The best illustration I have seen was in a nine-year-old boy who had had a cough of several months' duration. Tuberculin patch test was negative, and chest x-ray showed some increase in hilus shadows. There was a definite history of exposure to Bang's disease. The cough stopped completely within four days after the skin test dose of vaccine and has not recurred. Treatment has been continued, with improvement in all general symptoms. Similar results, although not so spectacular, have been noted in several cases.

Another type of result which is hard to classify is this: some patients feel that the beneficial effects of the vaccine last only for a short time, so that succeeding injections of vaccine must be given at short intervals to get proper benefit. This fact is obviously true in the use of estrogenic substance, where the patient's symptoms return as the time increases after an injection, but it is not quite so clear why it would be true with a vaccine product which theoretically stimulates an active immunity reaction. This may be a psychogenic response or it may be that the antibody stimulation of a single injection lasts only a short time in some people. Several patients have stated that they felt worse for about two days after the vaccine, then very well for several days, and finally began to feel worse again until more vaccine was given. This type of response must be studied with antibody titre levels to get more information.

Briefly summarizing the results, it may be said that 87.5 per cent of patients receiving intradermal vaccine alone got results which were classified as fair, good, or excellent. Because of the small size of the series, however, this figure is not statistically significant.

COMMENT

This paper is presented in order to introduce the use of a hitherto unreported method of treatment for brucellosis. Heat-killed vaccine has been used subcutaneously or intravenously for a number of years with generally good results. At first it was thought that systemic reactions were necessary to achieve these results. This was apparently proved in a large series of acute cases. However, in the chronic cases which are now coming to our attention, such vigorous treatment often seems harmful to the patient. For that reason a method of giving vaccine has been developed wherein small doses of the heat-killed organisms are given in a site where their reaction can be readily watched and measured. Systemic reactions are very few, and if care is executed in the size of the dosage, local necrosis need not be obtained.

There seems to be adequate proof that the intradermal injection of vaccines of various organisms is accompanied by the production of measurable antibodies within the host. The function of these measurable antibodies is as yet unproved, but it may be assumed that they are at least indicators of the development of an immunity reaction in the tissues of the host. Considering brucellosis, particularly in its chronic phase, to be a disease in which immunity reaction is poor or incomplete, it was felt that such immunity might be stimulated by the frequent intradermal injections of small quantities of heat-killed organisms.

Huddleson has been using brucellin intradermally for several years, giving part of it there and part intramuscularly, to produce the febrile response which he considers necessary for successful treatment.

SUMMARY

The immunologic and practical considerations in therapy of brucellosis by heat-killed vaccine given intradermally is discussed in this paper. Proof is presented of the development of demonstrable antibodies when vaccine is given intradermally. An hypothesis is suggested that these demonstrable antibodies may be the indicators of an immunity reaction within the tissues.

The intradermal route of vaccine administration offers several advantages. The amount of vaccine necessary is small. The injections are relatively painless. The amount of reaction can be carefully watched and measured. Systemic reactions are few.

In a small series of cases, good clinical results were obtained by the use of this method.

ERRATA

We regret that because of unavoidable circumstances the sequence of the illustrations are incorrect in Figure I of Dr. Franklin B. Peck's article on "Treatment of Uncomplicated Diabetes with Mixtures of Insulin and Protamine Zinc Insulin," which was published on pages 344 and 345 of our July, 1943, issue. The captions are correct as printed, but the illustrations are transposed. The illustration for Caption No. 1 was used with Caption No. 3; illustration for Caption No. 2 was listed as No. 4; illustration No. 3 was listed as No. 5; illustration No. 4 was listed as No. 1; and illustration No. 5 was listed as No. 2. Please re-number the illustrations in your Journal, or secure a corrected reprint directly from Dr. Peck, whose address is 740 South Alabama Street, Indianapolis, Indiana.

THE TREATMENT OF CHRONIC BRUCELLOSIS WITH SULFASUXIDINE

NEAL DAVIS, M.D.
LOWELL

Chronic brucellosis is being recognized by more clinicians each day, and proved cases are multiplying. Diagnostic methods have become more accurate and the clinical picture has become more of an entity, but as yet few clinicians can point with pride to their list of cured cases.

Prior to September, 1942, vaccines produced the best results in the hands of most investigators. For five years previous to this date I was disappointed at being able to obtain not more than a 50 per cent cure. The earlier sulfonamides had been pointed to with favor by some workers, but were a disappointment when applied to a series of cases. The lack of satisfactory therapy led me to a constant search for some clinical fact about the disease which would give a clue to better therapeutic results.

In June of 1942 Dr. Ewart S. Sarvis, of Sumas, Washington, reported that he had seen in quick succession three acute cases of brucellosis, which exhibited as their outstanding clinical symptom diarrhea and evidence of pathology in the digestive tract. This clinical manifestation led him to use the intestinal antiseptic, sulfaguanidine. All three cases responded rapidly and the recovery was complete. Dr. Gerald W. Bardens, a veterinarian, is responsible for the statement that dairy cows, dying from abortion disease, many times show more pathology in the digestive tract than in the reproductive organs. He has also observed that new-born calves from an infected herd show a very high incidence of severe diarrhea. A review of my first fifty patients showed a complaint of colitis in 35 per cent of the cases. A series of cases reported by Dr. Dan L. Urschel, of Mentone, Indiana, shows a complaint of bloating in 26 per cent of the cases. A physical examination of all my cases has shown tenderness over the colon in 85 per cent of the cases, although in many instances no complaint had been made referable to the abdomen.

These observations justify the assumption that brucellosis may be a primary disease of the digestive tract, and the spread to the rest of the body is either through septicemia or the result of toxins picked up in the digestive tract and circulated throughout the body. If this assumption were true, an intestinal antiseptic should be the answer to our general therapeutic problem. Such an antiseptic should not be absorbed from the digestive tract, should remain active in the presence of digestive processes, and should be non-toxic so that it could be used over a long period of time. Sulfasuxidine answers these requirements. In September of 1942 I started the use of this drug in all my cases, and the results have been very gratifying.

A case history which is very typical of chronic brucellosis is that of E. M., who came to me in May of this year. She stated that a year ago, while living in another community, she developed pains in the upper right quadrant of the abdomen. This was accompanied by pain and marked weakness in the back, which radiated down into the thigh. She had some pain in the left shoulder and in her knees. The symptoms became so severe that she was forced to give up the care of her home. She consulted a physician who diagnosed the condition as gall bladder disease and started appropriate therapy. After six months of treatment her condition was unchanged, and she was advised to go to the hospital for x-ray study and possible surgery. The x-ray study revealed a normal gall bladder with no stones, and she was sent home with her condition unchanged. Upon moving to my community she consulted me. A physical examination was negative, except for abdominal tenderness which had shifted to the left side. A blood agglutination test was made and she was found to react in a dilution of 1 to 200. She was immediately placed on sulfasuxidine, .5 gm. three times a day. One week later her abdominal pain was gone, and on the following week she stated that all of her symptoms had diminished. Since then she has taken over the care of her household and has been able to do considerable work in her garden. The blood titers have been very interesting to follow. On vaccine therapy the titer is seen to rise. On sulfasuxidine the blood titer comes down, as seen in the following table taken from records of the above case:

TABLE I

	1/25	1/50	1/100	1/200
1st week	4 plus	3 plus	2 plus	1 plus
2nd week	4 plus	3 plus	——	——
3rd week	4 plus	3 plus	trace	——
4th week	4 plus	3 plus	——	——
6th week	4 plus	1 plus	——	——

According to the manufacturer, sulfasuxidine remains in the digestive tract, only 5 per cent being absorbed. Inasmuch as this is true, one can reasonably assume that the full effects of the drug is on the digestive tract. Since symptoms, such as pain, weakness, uterine hemorrhage, and exanthemata in distant parts of the body, are readily relieved by sulfasuxidine, one is led to the belief that the primary focus must be in the colon. Harris and others have demonstrated foci of infection in bone and in other tissues, and undoubtedly at times a septicemia will produce metastatic lesions over the body which could not be expected to respond to sulfasuxidine. Inasmuch as the active radical of sulfasuxidine is

sulfathiazole, it is easy to understand how this drug can be helpful in such metastatic cases. To date I have treated eighteen cases with sulfasuxidine. Ten cases have been dismissed and are apparently cured, six are much improved but still under treatment, and two cases have up to the present time shown no response to the drug. At the present time I am unable to give any explanation of the two failures; however, they are still under study.

TREATMENT AND REHABILITATION OF THE HARD OF HEARING CHILD*

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The appearance of the audiometer in 1922 stimulated a distinct era of investigation into the loss of the sense of hearing. Most of us in practice have had difficulty keeping in touch with the new conceptions as they have appeared, as well as the wide departures from the old accepted ideas.

The recent surveys of school children has aroused so much public interest in the problem of treatment and rehabilitation for the hard of hearing that we must organize our thoughts a little more closely. In the past there has been little doubt as to the treatment or rehabilitation for the deaf child, and this has not changed much. These are the few who are born deaf or cannot hear any sound regardless of how loud it may be, and can be cared for only in a school for the deaf or deaf-blind. However, for the hard-of-hearing child the picture has changed but is not yet clear cut, for it involves all degrees of changing loss in hearing below 100 decibels, combined in various ways with intellect, emotions, loss of sight and other physical impairments.

The organ of hearing, as we find it developed in the human ear, is the latest acquired special sense. Phylogenetically, it it preceded by all other special senses except the lens of the eye which appears in lower forms about the same time. It is commonly recognized that the more recently acquired attributes are most vulnerable. Therefore, of all the special senses the hearing in humans, which we are considering, is the most susceptible to the trials of life.

The usual conception among people with all their senses intact is that they would rather lose their hearing than their sight. Also those unfortunate people with loss of both sight and hearing are referred to among the teaching groups as "deaf-blind," implying that the loss of sight is the worst of the two handicaps. On the contrary, there is no greater isolating barrier to our fellow-men than the loss of hearing. It is much more satisfactory to contact or visit with the blind than the deaf or even hard-of-hearing. We have a greater tendency to avoid the deaf because of the difficulty in communicating with them and the misunderstanding which so often arises. In the home where there is deafness, we find definite fatigue among those who must contact and care for the handicapped member. Among children, particularly at the age when they should be getting an education, the loss of hearing constitutes a distinct handicap, causing repetition of grades, and creating an inferiority complex. We could make better citizens of the hard-of-hearing child if the difficulty could be found early and often even simple aid provided.

The best treatment for the majority of hearing difficulties is prevention, either in the congenital or acquired forms. The congenital form occurs intrauterine and may result from consanguineous marriages, intermarriage of deaf people—which is occurring more and more frequently—syphilis, intrauterine injury or the use of drugs by the parents, particularly the mother, including alcohol and tobacco. Other than the possibility of syphilis, the best treatment for this group, which is the smaller, remains preventive. The acquired group, on the other hand, offers some occasion for specific treatment, but, as we will see, prevention still occupies a prominent place.

Temporary impairment due to mechanical interference with the normal hearing apparatus offers the greatest opportunity for definite treatment. Such conditions as accumulated wax in the external canal, external otitis, obstructive adenoid or purulent otitis media—all produce a temporary lowering of the threshold of hearing. In a recent report of a large group of children studied over many years, Crowe[1] found that merely the presence of lymphoid patches in the eustachian tube are sufficient to cause a marked dampening of hearing. Any of these conditions which cause a temporary depression in hearing of the obstructive type are fairly innocent in themselves, but if allowed to persist over considerable time they will allow a secondary permanent difficulty to develop simply due to lack of use. Crowe believes that 50 per cent of adult difficulty in hearing is the result of conditions arising in childhood. Therefore, these temporary conditions which occur in childhood should not be passed over lightly and should be cared for

* Presented before the Indiana Academy of Ophthalmology and Otolaryngology at Indianapolis on April 28, 1943.

[1] Crowe, S. J., and Burnam, Curtis F.: Recognition, Treatment and Prevention of Hearing Impairment in Children, *Annals Otol. Rhino. Laryng.*, **50**:15, (March) 1941.

according to their own particular needs in order to prevent greater trouble in adult life.

The accumulation of wax in the external canal is primarily due to the shape of the canal. In the infant the outer part of the canal is much smaller than the rest, and the custom of wiping babies' ears with cotton on tooth picks, as has been done for years, is more likely to pack wax back into the canal than to remove it.

In reference to obstructive adenoids, it has been my custom to avoid removing them below the age of two, when nature will permit. This opinion was developed during the examination of children at a Better Baby Contest held at the Indiana State Fair some years ago. We saw around one thousand children each year for several years, ranging in age from one to three. In the children below two years of age it was rare to find any departure from normal in the ear, nose or throat. However, among those past two years of age we began to see signs of infection in tonsils and obstruction from adenoids. Since then, however, the sulfonamide drugs have appeared and have cut down the occurrence of residual infection in tonsils and adenoids, as well as the appearance of purulent otitis media.

Ear injuries received from systemic toxemia or infection present a more complicated picture. These are the patients who come in as children, usually after a few years of school, with a history of having had a sickness or fall after which they did not hear as well. There may or may not be a history of actual ear complications. As a rule they are not doing well in school or have been picked up during a school survey. The degree of damage depends upon the severity of the infection, the amount of care at the time, and the inherent qualities of the child.

By looking at the most extreme results as seen in schools for the deaf, we may get a better view of how we may help the lesser afflicted. In the surveys from the schools for the deaf,[2, 3, 4] we find that meningitis is the predominant cause for deafness, followed by whooping cough, measles, scarlet fever, mumps, congenital syphilis, undiagnosed fever, mastoiditis, otitis media and fracture or injury to the head. Of course, the undiagnosed fever could have been any of the others, and otitis media or mastoiditis may have occurred with any infection. It is surprising how often a history of a fall with injury to the head, followed by impaired hearing, appears in a hearing clinic. We see all grades of impairment tapering up from these more severe permanent results to the lowering of threshold which accompanies an acute coryza.

The slight disturbance with an acute cold usually passes as the cold clears up and is partly obstructive due to congestion, but there is often also some toxic effect which may affect either the end organ or eighth nerve. As a rule, if the difficulty is simply obstruction or affection of the eighth nerve, recovery is complete, but if the end organ is seriously involved the recovery leaves the patient with a slight permanent impairment in hearing.[5]

Naturally the treatment of deafness resulting from toxemia or infection must be instituted at the time the infection is present. Therefore, we as otologists must rely upon the general physician or pediatrician to take into consideration the possibilities and care for the case accordingly. Of course, we assume that a doctor is called in to see these cases, which too often does not occur. When his attention is requested, if he simply administers the accepted treatment of the times, together with proper confinement and protection, no more can be done. No one can replace weaker parts with stronger ones. The matter of protection, however, has been overlooked in the past. The susceptibility of the eye to light has been recognized for years and protection has been exercised during acute childhood diseases. With a child's inherent love for noise and with the high sensitivity of the ears, it is equally important to protect the ears against noise during acute infection.

The matter of rehabilitation usually begins with the general physician, particularly when the difficulty has been discovered by a school survey. Usually he is so occupied with more acutely ill patients that it is difficult to secure his attention for a child who does not hear well. After he has administered the aid he sees fit to give and has referred the case to an otologist, it behooves the otologist to do more than talk to the child and tell the mother that the child hears conversation and will get along all right. The cause of the impairment should be learned from the history, the amount of loss should be determined, the type established and a prognosis arrived at as nearly as possible.

According to the amount of loss, together with the child's intellect and in accordance with accommodations available, a definite plan of aid should be outlined. It may become necessary later to change the plan, but that is often not recognized at first. A simple outline is proposed by Kerridge and appeared in a recent article by Nash[6] in which group A, classified as hearing conversational voice no further than 20 feet, should have a favorable seat in a regular school. Group B, who hear conversational voice at less than 20 feet but more than 2 feet, should attend a special class for the acoustically handicapped in a regular school. Group C,

[2] Drennan, G. L.: Physical Impairment of Deaf Children, *Illinois M. J.*, **70**:254, (Sept.) 1936.

[3] Hughson, Walter; Ciocco, Antoni, and Palmer, Carroll: The Studies of the Pupils of the Pennsylvania School for the Deaf, *Arch. Otolaryn.*, **29**:403, (March) 1939.

[4] Hughson, Walter; Ciocco, Antoni, and Palmer, Carroll: Studies of Pupils of the Pennsylvania School for the Deaf, *Arch. Otolaryng.*, **35**:871, (June) 1942.

[5] Lurie, M. H.: What is Perception Deafness from a Physiological and Histological Basis? *Annals, Otol. Rhino. Laryng.*, **48**:3, (March) 1939.

[6] Nash, C. S.: Residual Hearing, *Laryngoscope*, **52**:677, (July) 1942.

who hear conversational voice at 2 feet or less, should be in full attendance in a school for the deaf. Another classification by O'Connor appears in the same article which is much more detailed. Children with but 20 decibels loss require only a favorable seat in a regular school; those with 20 db. to 30 db. loss may require also some instruction in lip reading; those with 30 db. to 40 db. loss require a favorable seat, hearing aid, speech correction and special tutoring; 40 db. to 50 db. loss requires, in addition, partial attendance in a special class in a regular school; 50 db. to 60 db. loss requires full attendance in a special class in a regular school, full attendance at a special day school for the acoustically handicapped or full attendance at a residential school for the deaf; 60 db. to 100 db. loss requires full attendance in special classes in a regular school or full attendance at a residential school for the deaf.

As mentioned earlier, in any classification one must take into consideration the variability of hearing loss, intellect of the pupil, emotional reactions and other physical handicaps. Although, according to Fletcher's[7] work, average conversation usually takes place between 40 and 70 decibels at a meter's distance; when the distance is changed the amount of force required also changes. In the lesser losses the voice of the teacher and the acoustics of the room must also be taken into consideration. When all of these influences are properly evaluated, each case presents a highly specialized problem requiring time and effort in order to arrive at the most satisfactory recommendation.

[7] Fletcher, Harvey: *Annals of Otol. Rhino. Laryng.*, 41:727, (Sept.) 1932.

ABSTRACT

SAY DIETS DEFICIENT IN VITAMIN B COMPLEX REDUCE WORK OUTPUT

Carefully controlled experiments with four medical students who first trained from nine months to one year on a normal, adequate diet and then were put on a diet deficient particularly in the vitamin B complex showed that diets deficient in vitamin B complex decrease work output and that early mild states of malnutrition, with no objective evidence of deficiency disease, do prevent maximal work efficiency, Clifford J. Barborka, M.D.; Eliot E. Foltz, M.D., and Andrew C. Ivy, M.D., Chicago, report in *The Journal of the American Medical Association* for July 10.

The investigators also found that diets with about one-third of the vitamin B complex of the recommended daily requirement do produce subjective symptoms of easy fatigue, irritability, lack of pep, anorexia and increased leg pain during work periods, in spite of the fact that no objective evidence of deficiency disease is present. These aforementioned subjective symptoms of fatigue all disappeared and work output returned to normal or better within a few days following the supplementation of vitamin B complex to the deficient diets fed the four medical students. It was also found that the supplementation restores work output to efficient levels.

Their findings lead the three physicians to state that "Difficult muscular effort such as the civilian, industrial or Army worker must exert, with consequent greater combustion of carbohydrate, should lead to a greater requirement of vitamins. The use of natural foods to bring inadequate diets to the required level is the ideal solution of the problem. Until this plan shall have become workable, discriminate vitamin administration to the civilian or industrial worker on an inadequate diet is a sound policy."

In approaching the question of the relationship between vitamin B complex intake and work output, the investigators explain that "It is well known that many people in the United States are existing on diets low, by our present recommended standards, in the vitamin B complex without exhibiting symptoms or signs diagnostic of vitamin deficiency. Does this state of nutrition prevent maximal work output or does the decrease in work output, if it occurs, begin only after the signs and symptoms of vitamin deficiency are well established? In times of war, when manpower should be at peak efficiency, this is especially important to know. If a commonly used mildly deficient diet has a detrimental effect on work output, it then becomes desirable to know the effect of vitamin supplementations. In an attempt to answer some of these questions this experiment was undertaken. . . ."

The four medical students used in the investigation were provided with board and room in a hospital near the laboratory where the tests were made. Careful analyses were made at various times of each of the items of food in the diet furnished the four students.

The students were chosen on the basis of their willingness to cooperate and not on the basis of muscular development, the work of the tests being their only source of physical exercise. The work was done three times each week on an instrument that measured the energy output of the students. They worked to complete fatigue, rested ten minutes and worked to complete fatigue again.

"This method of fatiguing the subjects," the investigators explain, "was chosen because it has been demonstrated that the total work output of the double work periods is less variable than the work output of a single work period, and because by this method we are able to study recovery from fatigue. . . ."

The work output rose during the first three to four months of the training period until it reached a plateau which was maintained for six to nine months prior to the institution of the deficient diet. There was a definite decrease in the work output shortly after the deficient diet was begun, and there was a definite increase in work output following the addition of yeast concentrate to the deficient diet. This increase was shown by all subjects within forty-eight hours following the yeast supplementation. Within four days, the work output of one student had surpassed that which he had done on a normal diet. The work outputs of the other three students at the end of four weeks of yeast supplementation had increased to approximately what they had been on the adequate diet.

The investigators found that the ratio of blood pyruvic acid to the total work output increases proportionately as diet deficiency progresses. The three physicians believe that this ratio may prove to be a useful indicator of fairly early vitamin B complex deficiency.

In the adequate diet given the four students the investigators used the daily amount of thiamine and riboflavin which is recommended by the Food and Nutrition Board of the National Research Council for moderately active men in health. The deficient diet was composed of common foods, and the menus were such as might be found on the tables of about one-third or more of the population of the United States.

THE SULFONAMIDES*

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Should the question be put to you now, as it must have been asked frequently of every physician, "Which single drug would you wish most to retain at the expense of losing all others?" your difficulties would no doubt be greater today than five or six years ago; this because of the new chemotherapeutic group of drugs, the sulfonamides. As important as morphine, digitalis, salicylates, quinine, ergot, endocrine products and numerous other agents are, the "age of sulfamiracles" is upon us, making more difficult the physician's answer to the question proposed. Opinions vary as to relative importance of various drugs, but unanimity of opinion perhaps would favor our newest drugs, the sulfonamides, as ranking very high.

Hardly seven years old, clinically speaking, sulfa drugs perhaps have saved the lives of more patients than any other drug over a similar period. More than a decade ago Joslin said of insulin, "It has saved thousands of lives." The same can be said of digitalis, quinine, epinephrine and other drugs, but of sulfonamides it can be safely said that they have saved tens of thousands, perhaps hundreds of thousands of lives. If Gelmo, who discovered sulfanilamide in 1908, could then have realized the potential importance of his contribution to medical progress, he might well have removed his sandals, treading on such holy ground. Greater insight into the potential value of sulfonamides must have been Domagk's when he first demonstrated the bacteriostatic properties of sulfanilamide in the form of neoprontosil in experimental streptococcic infections in rats in 1932. Contributing significantly to this phase of chemotherapeutic progress were Colebrook, Kennedy, Buttle and associates, of England; Fourneau, Bovet and associates, of France; Long and Bliss, of Baltimore; Mellon and co-workers, of Pittsburgh, and hosts of others. Step by step, bacteriologist, pharmacologist and clinician have co-operated to develop the important sulfonamides available today. Most important of these are still sulfanilamide, sulfathiazole and sulfapyridine, along with those more recently developed, sulfaguanidine, sulfadiazine, succinyl sulfathiazole, sulfacetimide and others of less importance.

The action of all sulfonamides is that of bacteriostasis, but it is conceivable that in sufficiently high concentrations bactericidal effects may be elicited. The sulfonamides are apparently not directly active as antiseptic or germicidal agents, but may act indirectly. Mellon[1] and associates, of Pittsburgh, have offered evidence which demonstrates that certain organisms which produce hydrogen peroxide do so to lethal excess in the presence of sulfanilamide. Normally a catalase promotes the destruction of hydrogen peroxide to water and oxygen, but these workers believe that sulfanilamide, when oxidized to an intermediary product parahydroxylaminobenzene sulfonamide, combines with the cellular catalase to produce an anticatalase which fails to reduce hydrogen peroxide, thus allowing the latter to accumulate in excessively harmful or bactericidal concentrations. By this mechanism the organism, in the presence of sulfanilamide or its derivatives, produces its own killing agent.

Mellon's work has not been generally accepted as prevailing for all organisms; in fact, some investigators have not been able to confirm the findings concerning excess hydrogen peroxide production by some bacteria, indicating that other factors may account for sulfonamide action. Woods,[2] Fildes[3] and others have focused attention upon para-aminobenzoic acid as a normal growth-promoting constituent necessary for all bacteria

which, under the influence of sulfonamides, cannot be utilized by bacteria and hence starvation results even in the presence of plenty. This concept of failure to assimilate para-aminobenzoic acid has been largely accepted by most workers in this field as the probable mechanism by which sulfonamides effect bacteriostasis. The earlier suggestions that antibody production of various types was enhanced by sulfonamides have not been supported by adequate experimental evidence, and if natural immunity responses on the part of the host are at all enhanced, they are only relatively so promoted, with the result that the body is able with the assistance of sulfonamides to more readily overcome a less potent or weakened infectious organism. Long and Bliss so well state:

> ". . . It seems possible to conclude that sulfanilamide does not arouse a specific response on the part of the host. The production of

* Presented before the Northern Tri-State Medical Association at Fort Wayne on April 7, 1942.

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[1] Mellon, R. R.; Locke, A., and Shinn, L. E.: Anti-enzymatic Nature of Sulfanilamides Bacteriostatic Action, *Am. J. M. Sc.*, **199**:749 (June), 1940.

[2] Woods, D. D.: Relation of p-aminobenzoic Acid to Mechanism of Action of Sulfanilamide, *Brit. J. Exper. Path.*, **21**:74 (April), 1940.

[3] Fildes, P.: A Rational Approach to Research in Chemotherapy, *Lancet*, **1**:955, 1940.

TABLE I*

SULFONAMIDES

	SMD	*SPD*	*STZ*	*SGD*	*SDZ*
Mechanism	Bacteriostatic	B.S.	B.S.	B.S.	B.S.
Solubility,%	0.8	0.03-0.15	0.09	0.22	0.01
Absorption	xx	x	xx	x –	x, slow
Distribution	x	x	x (–)	x	x
Plasma	2-4 hrs.	4-6 hrs.	2-3 hrs.	?	6-8 hrs.
Fetal bl.	Mother's level	M.L. –	M.L. – ?	?	M.L. – ?
C. Sp. Fld.	25% below pl.	Pl. –	1 mgm. %	?	50% of pl. lev.
Prost. Fld.	15-35 mgm. %	10-20 ?	5-15 ?	?	?
Milk	➤ pl. lev.	➤ pl. lev.	➤ pl. lev.	?	?
Conjugation	10-20%	50-75%	12-30%	Moderate ?	x
Excretion					
Urine	95%	60%	80%	95% pl. conc.	Slow, 90% x
Reabsorpt.	70-80%	?	?	?	x
Conj. Rbspt.	Slight	? –	?	?	?
Urolithiasis	– x	xxx	xx	?	– ?
Desirable pl. lev.	10-15 mgm. %	7-12 mgm.	3-7 mgm.	–	4-9 mgm.
Routes of Adm.	Varied	V	V	Oral, rectal intraperitoneal	V

* Index to abbreviations: SMD = Sulfanilamide, SPD = Sulfapyridine, STZ = Sulfathiazole, SGD = Sulfaguanidine, SDZ = Sulfadiazine, pl = plasma, V = varied.

antibodies is not stimulated, and there is no direct action upon the phagocytic mechanism. On the other hand, there is considerable evidence that the drug does act upon the microorganism in vitro and in vivo. Most workers are of the opinion that this action takes the form of an inhibition of the growth of the bacteria which brings about a suppression of their invasive power, and which thereby permits the defense mechanism of the host to accomplish its function."

The most important features and characteristics concerning solubility, absorption, distribution, blood levels, degree of acetylation, et cetera, are summarized in Table I, but warrant some discussion.

It is readily noted that sulfanilamide is the most soluble of all the sulfonamides, whereas the newer sulfadiazine is least soluble. Interestingly enough they are both especially effective against streptococcal infections (Table II),[4] but also possess a wide range of effective action on other bacteria. Greater concentrations of sulfadiazine can be gained in the form of its sodium salt, readily affording 5 per cent solutions. The fact that all important sulfonamides are somewhat soluble allows for oral administration as the route of choice. Sulfaguanidine, although quite soluble, strangely is very little absorbed, and thus permits effective concentrations in the gastro-intestinal tract for localized action in certain infections of the intestine.

Fortunately absorption occurs quite rapidly with the important members of this group, time intervals varying between two and eight hours, and distribution is uniform. With the exception of sulfaguanidine, the other members listed appear in varying concentration in fetal blood, cerebrospinal fluid, prostatic fluid, milk, bile and urine. Reference to Table II offers some explanation of the value of sulfanilamide and sulfathiazole therapy in gonorrheal infections since such high concentrations prevail in prostatic fluid and urine. Fetal blood levels may vary considerably, but it must be borne in mind that undesirable sequelae associated with bone marrow development and the fetal blood picture may result from too heroic and prolonged anti-infectious treatment of expectant mothers. Of special interest is the very low level of sulfathiazole in cerebrospinal fluid. Values up to 6 and 8 mgm. have been reported, but these are uncommon. If the accepted low of 1 mgm. per cent prevails, it can be concluded that meningococcal and other infections of the dural tract either lend themselves favorably to a very low sulfathiazole level or other factors, as yet undetermined, modify the favorable action of such low concentrations so as to produce beneficial results. Breast milk may contain sulfonamides, more in the infrequently nursing mother than otherwise, but never in sufficient concentration to effectively medicate the nursing infant. Fortunately sulfonamides can penetrate to all body tissues and fluids and usually in sufficient concentrations to be effective bacteriostatically.

Although much of certain sulfonamides may be absorbed, considerable percentages may be rendered inactive by the liver and perhaps other tissues through conjugation with acetyl groups, resulting in acetylated or conjugated sulfonamides which are considered to be inert. Sulfapyridine is most readily acetylated and also most often precipitated in the urinary tract. This precipitation can be largely but not entirely obviated by forcing of fluids and perhaps by administration of sodium bicarbonate in amounts equal to or greater than the amounts of sulfonamide employed, on the basis that alkalinity prevents much of the danger of precipita-

[4] Spink, W. W.: Sulfanilamide and Related Compounds in General Practice, published by Year Book Publishers, Inc., Chicago, 1941 and 1942.

tion of the acetylated sulfonamide. Because of the high percentage of acetylation or conjugation, large doses of these agents must be given in order to maintain an active blood concentration of free sulfonamide, thus concomitantly predisposing the patient to the hazards of potential renal concretions with attending renal irritation and perhaps anuria. Recently we have come to believe that renal damage by sulfonamides can either be prevented or corrected by adequate fluid intake of no less than

TABLE II

PREFERENTIAL USE OF SULFONAMIDE COMPOUNDS*

DISEASE	*Sulfanilamide*	*Sulfapyridine*	*Sulfathiazole*	*Sulfadiazine*
Infections Due to Beta Hemolytic Streptococci (Lancefield group A, also B, C, G)				
Bacteremia	2	4	3	1
Scarlet fever	2	4	3	1
Erysipelas	2	3	4	1
Puerperal sepsis	2	4	3	1
Peritonitis	2	4	3	1
Tonsillitis	2	4	3	1
Adenitis	2	4	3	1
Otitis media	2	4	3	1
Mastoiditis	2	4	3	1
Meningitis	2	3	?	1
Pneumonia	2	3	4	1
Empyema	2	3	4	1
Cellulitis	2	4	3	1
Arthritis	2	4	3	1
Osteomyelitis	2	4	3	1
Infections Due to Alpha Hemolytic Streptococci (Str. viridans)				
Bacteremia	1	3	2	?
Meningitis	1	2	?	?
Meningococcic Infections				
Bacteremia	2	4	3	1
Meningitis	3	2	?	1
Gonococcic Infections				
Male and female gonorrhea	3	2	1	?
Vulvovaginitis	2	1	?	?
Ophthalmia neonatorum	3	2	1	?
Arthritis	3	2	1	?
Pneumococcic Infections				
Pneumonia	4	3	2	1
Bacteremia	4	3	2	1
Meningitis	3	2	?	1
Peritonitis	2	1	?	?
Otitis media	3	1	2	?
Mastoiditis	3	1	2	?
Staphylococcic Infections				
Bacteremia	4	3	1	2
Meningitis	4	2	3	1
Pneumonia	4	3	1	2
Furuncles, carbuncles	4	3	1	2
Osteomyelitis	4	3	1	2
Arthritis	4	3	1	2
Urinary Tract Infections (cystitis, pyelonephritis, etc.)				
Staphylococci (aureus and albus)	3	4	1	2
Beta hemolytic streptococci (Lancefield groups A, B, C, G)	2	4	3	1
Str. viridans	2	3	1	?
Str. Faecalis	0	?	1	?
Coliform group (E. coli aerobacter and intermediates)	3	4	1	2
ps. pyocyaneus	2	3	1	?
H. influenzae	1	?	?	?
Proteus species	3	4	1	2
Trachoma	1	2	?	?
Lymphopathia Venereum	1	3	2	?
Chancroid	1	2	?	?
Influenza Bacillus Infections (H. influenzae)				
Bacteremia	2	1	?	
Meningitis	2	1	?	
Friedlander Bacillus Infections	0	2	?	1
Anaerobic Infections				
Gas gangrene group				
Cl. Welchii	1	3	2	?
Cl. oedematis maligni	?	1	?	?
Cl. oedematiens	?	?	?	?
Skin Infections				
Impetigo				
Staphylococcic	2	3	1	?
Streptococcic	1	3	2	?
Pustular dermatitis	2	3	1	?
Pemphigus vulgaris	?	1	?	?
Sycosis	2	?	1	?
Fungus Infections				
Actinomycosis	1	?	?	?
Try Sulfonamides, though value is doubtful				
Tularemia	2	?	1	?
Typhoid Fever	2	?	1	?
Salmonella Infections				
Paratyphoid A	2	?	1	?
Paratyphoid B	2	?	1	?
Paratyphoid C	2	?	1	?
Paratyphoid D (S. enteritidis or B. enteritidis gaertner	2	?	1	?
Shigella Infections				
S. dysenteriae (Shiga)	2	?	1	?
S. paradysenteriae (Flexner Strong, Panama)	2	?	1	?
S. Sonnei (Sonne)	1	?	?	?
Psittacosis	?	1	?	?
Ulcerative Colitis	1	?	?	?
Acute Lupus Erythematosus	1	?	?	?
Infections Due to Listerella Monocytogenes				
Meningitis	?	1	?	
Subacute Bacterial Endocarditis	1	2	3	?

Diseases for which Sulfonamide Compounds are of No Value

Anaerobic streptococcic infections; puerperal sepsis, bacteremia. Common cold. Influenza. Diphtheria (including carriers). Tuberculosis. Rickettsial infections; typhus fever, Rocky Mountain spotted fever. Syphilis. Yaws. Blastomycosis. Poliomyelitis. Rheumatoid or atrophic arthritis. Acute rheumatic fever. Chorea. Malaria. Rabies. Smallpox. Measles (may be useful for streptococcic complications). Mumps. Chickenpox. Trichinosis. Anthrax.

Tables revised by author to include new data on sulfadiazine.

* Key to tables: 1—is drug of choice. 2—second choice. 3—third choice. 4—fourth choice. ?—insufficient data. ∿—contra-indicated.

1000 cc. per day.[5] If possible, blood levels determined at regular intervals in severely ill patients are most desirable, but the accepted dosage schedules recommended by Long and Bliss and others which are now largely used by most physicians do not as a rule demand such laboratory procedures in the average type of case. Careful and close observation for signs of clinical improvement or toxicity seem adequate for creditable work by experienced physicians. The customary routines for oral administration of various sulfonamides are so well known that they need not be elaborated upon, but sulfaguanidine should be given according to the following modified dosage and schedule as recommended by Spink.[4]

> "0.1 Gm. per kilogram of body weight as an initial dose; then 0.05 Gm. per kilogram every four hours day and night until the stools number four or less a day. Thereafter 0.1 Gm. per kilogram should be given every eigth hours for seventy-two hours. Therapy should not be continued for longer than fourteen days. The dose in adults is the same, except that 0.05 Gm. per kilogram instead of 0.1 Gm. should be given after the number of stools is reduced to four or less a day."

Sulfaguanidine has gained popularity in the treatment of bacillary dysentery because it is very poorly absorbed and thus prevails in high bacteriostatic or bactericidal concentration in the intestinal tract. Firor and Poth[6] have emphasized the value of prophylactic treatment of cases prior to surgical resections of segments of the gastrointestinal tract.

(Since presentation of this material at Fort Wayne, the author became aware of the excellent results obtained by Dr. Charley Smyth and Dr. S. Gould[7] with succinyl sulfathiazole in the treatment of bacillary dysentery of the Flexner type in an epidemic at the William J. Seymour Hospital. With Dr. Smyth's permission these results were presented at the Peru meeting. There seems to be little doubt that succinyl sulfathiazole will entirely replace the more toxic sulfaguanidine in this type of infection.)

Sulfadiazine has recently been accepted by the Council of Pharmacy and Chemistry of the American Medical Association and has found a place of real value in the treatment of certain infections (Table II).[4] Although generally no more effective in streptococcic and pneumococcic infections, the chief virtues of sulfadiazine preside in its being better tolerated with a lower incidence of nausea and vomiting, slower but more prolonged action, less toxicity and perhaps less frequency of renal concretions resulting from precipitation of the acetylated or conjugated sulfadiazine. This latter fact is often stressed, but one must be aware of the fact that it may occur as emphasized by Thompson and

[5] Long, P.: The Clinical Use of Sulfanilamide, Sulfapyridine, Sulfathiazole, Sulfaguanidine and Sulfadiazine in the Prophylaxis and Treatment of Infections, *Canad. Med. Assoc. J.*, **44**:217, 1941.

[6] Firor, W. M., and Poth, E. J.: Intestinal Antisepsis, with Special Reference to Sulfanilylguanidine, *Am. Surg.*, **114**:663, 1941.

[7] Smyth, C., and Gould, S.: The Treatment of Acute Bacillary Dysentery (Flexner) with Sulfaguanidine and Succinyl Sulfathiazole, *Proc. of Cent. Soc. Clin. Res.*, **15**:11, 1942.

TABLE III

INTRAVENOUS INJECTIONS OF SULFANILAMIDE IN PROPYLENE GLYCOL

Subject	*Wt. in Kg.*	*Dosage Per Kg.* *Smd. Mgm.*	*P.G. cc.*	*Dilution with 0.9% Nacl.*	*Total Bulk Injected i.v. in cc.*	*Time for Injection in min.*	*Remarks*
Rabbit A	2.33	42.+	0.5—	1 in 2	2	1	Yellow, four-month old solution. No effect, immediate or delayed
Rabbit B	2.02	100.—	1.0—	1 in 2	4	2	Yellow, four-month old solution. No effect, immediate or delayed
Rabbit C	2.06	38.+*	1.0—	1 in 2	4	2	*Yellow, three-month old solution of Sulfathiazole. No effect, immediate or delayed
Dog Aa	22	10	0.1	1 in 4	8	2	No effect
Dog Ab	22	100	1.0	1 in 2	44	12	No effect. Total Smd.—2.4 Gm., P.G. = 24 cc., given within 30 minutes. Normal also after 2 and 24 hours
Dog Ba	7.4	10	0.1	1 in 2	1.48	1	No effect
Dog Bb	7.4	40	0.4	1 in 2	5.92	2	Slight extravasation. Slightly nervous. Normal in 4 minutes. Defecation in 5 minutes. Total of Smd. = .37 Gm., P.G. = 3.7 cc. given in 10 minutes
Dog C	5.75	60	0.6	1 in 2	6.90	2	No effect
Man							
J.J.	80	10	0.1	1 in 4	32	12	No symptoms at any time.
M.F.P.	61	10	0.1	1 in 4	24	12	No symptoms at any time.
G.I.	72	10	0.1	1 in 4	22	12	No symptoms at any time.
F.B.	73	10	0.1	1 in 4	27	13	No symptoms at any time.
H.F.C.	66	10	0.1	1 in 4	25	12	No symptoms except slight transient backache 20 hours later
F.F.Y.	82	10	0.1	1 in 4	32	13	No symptoms except slight transient backache 20 hours later

TABLE IV

BLOOD PRESSURE AND SULFANILAMIDE LEVELS IN MAN AFTER INTRAVENOUS INJECTION OF 10% SULFANILAMIDE IN PROPYLENE GLYCOL*

Subject	Blood Pressure Before Injection	Pressures At — Minutes Post Injection				†Blood Level Sulfanilamide in Mgm. Per Cent At — Minutes Post Injection			
		5	15	20	30	1	15	30	45
J.J.	106/76	96/64	118/81	.....	.....	1.4	....	....	....
M.F.P.	100/64	102/70	104/65	.....	.....	....	0.8	....	....
G.I.	138/80	138/80	138/82	.....	.....	....	....	0.6	....
F.B.	104/66	106/70	.....	.....	106/68	....	....	....	0.4
H.F.C.	124/72	.....	118/70	.....	116/70	....	....	....	....
F.F.Y.	128/80	.....	.....	128/80	128/80	....	....	....	....

* All subjects received 10 mgm. sulfanilamide per kilogram of body weight.

† Sulfanilamide determinations by Dr. Clarence Walton, Department of Surgery.

associates,[8] who cite a case of complete renal failure due to massive bilateral obstruction from the renal pelves down, necessitating ureteral catherization and flushing with warm water to re-establish kidney function. If sulfadiazine were no better than other sulfonamides as a bacteriostatic agent, it might still be the agent of choice since it is generally so much better tolerated orally than other members of this group.

(Since presentation of this material, sufficient experience with sulfadiazine has influenced the State Department of Health of New York to forsake the drug in favor of its predecessors, sulfapyridine and sulfathiazole, in the treatment of pneumococcal infections. The referees state that early claims made for sulfadiazine in respect to a low incidence of renal complications are not borne out by clinical experience and that sulfadiazine is no more effective than sulfathiazole in combating the pneumococcus. No doubt the greater cost of the drug, when compared with its predecessors, was also a factor in the decision of the referees. (*J.A.M.A.* **120**:546, 1942 (Oct.).

The most significant of recent advances associated with sulfonamide derivatives deal with topical or local application of sulfanilamide, sulfathiazole and sulfadiazine in solution or crystalline form in the treatment of burns, peritonitis and other infections. In order to gain more concentrated solutions, sodium salts have been made of sulfapyridine, sulfathiazole and sulfadiazine. The sulfonamides have been carried in various vehicles and media such as glycerine,[9] suspensions,[10] hot aqueous solutions[11] and ointments[12] with the hope that sustained, bacteriostatic, if not bactericidal concentrations, might be maintained in seriously infected areas.

For some time we have been interested in finding a suitable solvent for the more important sulfonamides, and our results indicate that propylene glycol[13, 14] may well serve this purpose for various therapeutic indications. Propylene glycol is practically nontoxic[15] in contradistinction to diethylene glycol, which was the lethal agent in the proprietary preparation "Elixir of Sulfanilamide" investigated by the American Medical Association in 1937.[16] Propylene glycol has been injected intravenously in dogs[17] in doses up to 25 cc. per kilogram without residual pathology. The only aberrant effect of such large amounts is a prolonged inebriation which is also experienced by human subjects after ingestion of a pint or more of propylene glycol. The relative safety of this glycol is indicated by its use as a constituent with bismuth in sobisminol mass and for certain proprietary vitamin D preparations. We have injected propylene glycol solutions of sulfanilamide and sulfathiazole intraperitoneally in daily dosage of 0.1 cc. and 0.2 cc. per kg. of body weight into rabbits, and after seven weeks no evidence of toxicity was detected. There were no significant changes in habits, appetite or blood findings, and weight gains continued to parallel those of control rabbits. The amounts of propylene glycol injected were not large but still were sufficient to carry effective amounts of sulfonamides into the system over a rather protracted period. Tables III and IV further illustrate the absence of significant effects when a 10 per cent solution of sulfanilamide in propylene glycol is injected intravenously into rabbits, dogs and human subjects.

Our studies with Dr. D. A. Joslyn (Table V) indicate the bactericidal activity of a 10 per cent solution of sulfanilamide in propylene glycol.

[8] Thompson, G. J.; Herrell, W. E., and Brown, A. E.: Anuria after Sulfadiazine Therapy, *Proc. Staff Meet. Mayo Clinic*, **16**:609 (Sept. 24), 1941.

[9] Lain, E. S.: Sulfanilamide in Glycerine in the Local Treatment for Pyodermas, *Arch. Dermat. and Syph.*, **44**:257 (Aug.), 1941.

[10] Johnson, M., Jr., and Davis, F. F.: The Use of Sulfanilamide Powder in Open Wounds, *Virginia Med. Monthly*, **67**:748 (Dec.), 1940.

[11] Adams, F. R.: Irrigation of Wounds with Hot Sulfanilamide Solution, *Medical Times*, **68**:11, 1940.

[12] Keeney, E. L.; Pembroke, R. H.; Chatard, F. E., and Zeigler, J. M.: Sulfathiazole Ointment in the Treatment of Cutaneous Infections, *J.A.M.A.*, **117**:1415, 1941.

[13] Yonkman, F. F.: Emergency Drugs in General Practice, *J. Ind. State Med. Assoc.*, **35**:210 (April), 1942.

[14] Yonkman, F. F.: Emergency Drugs, *Modern Hosp.*, **57**:106 (July), 1941.

[15] Hanzlik, P. J.; Newman, H. W.; Van Winkle, W.; Lehman, A. J., and Kennedy, N. I.: Toxicity, Fate and Excretion of Propylene Glycol and Some Other Glycols. *J. Pharm. & Exper. Therap.*, **67**:101, 1939.

[16] Geiling, E. K.; Coon, J. M., and Schaeffel, E. W.: Preliminary Report of Toxicity Studies (of Diethylene Glycol) on Rats, Rabbits and Dogs, *J.A.M.A.*, **109**:1532 (Nov.), 1937.

[17] Lehman, A. J., and Newman, H. W.: Propylene Glycol: Rate of Metabolism, Absorption and Excretion, with a Method for Estimation in Body Fluids, *J. Pharm. Exper. Therap.*, **60**:312, 1937.

TABLE V

BACTERIOLOGIC STUDIES

"Re: Sulfanilamide in Propylene Glycol

"Dear Sir:

"The following represent the results obtained from the testing of samples of sulfanilamide in Propylene Glycol submitted:

Sample Number	*Description*
1	10% Sulfanilamide in Propylene Glycol made 4-9-41 and stored in daylight.
20	10% Sulfanilamide in Propylene Glycol made 5-8-41 and stored in incubator.
23	10% Sulfanilamide in Propylene Glycol made 7-22-41 and stored in incubator.
30	10% Sulfanilamide in Propylene Glycol made 8-4-41 and stored in incubator.
No number	10% Sulfanilamide in Propylene Glycol submitted 9-2-41.

"The first four samples were tested for sterility by Mr. Kuhn and were found to be sterile.

"They were also tested for their self-sterilizing activity after being diluted with an equal amount of physiological salt solution.

"The following results were obtained:

Method: Self-sterilizing
Culture: Staph. aureus
Temp.: 25° C.

Sample Number	*Self-sterilizing in:*
1	3 hours
20	3 hours
23	3 hours
30	4 hours
Propylene Glycol and Physiological Salt Soln. āā	6 hours
Physiological Salt Soln.	Not in 24 hours

"The sample submitted 9-2-41 was then tested according to the F.D.A. (Shippen) test in the presence of Normal Horse Serum 10%, with the following results:

"Samples undiluted except with serum 10% were:
Ineffective in 7 hours against Escherichia coli
Ineffective in 7 hours against Staphylococcus aureus
Effective in 25 minutes against Streptococcus (hemolytic)

"Very truly yours,
"D. A. JOSLYN."

TABLE VI

10/20/41		1	2	3	4	5	6	7	Control
Staph. aureus	1. Sulfathiazole	++++							++++
	2. Sulfathiazole in Propy. Gly.	++++							
	3. Propylene Gly.	++++							
Strept. hemolyticus	1.	+++	+++	+++	++++				++++
	2.	++++	++++	++++	++++				
	3.	++++	++++	++++	++++				
Strept. Non-hemolyticus	1.	O	O	O	O	O	O		++++
	2.	O	O	O	O	O	O		
	3.	+++	++++						
Pneumococcus Type I	1.	—	—	—	—	—	—		++++
	2.	—	—	—	—	—	—		
	3.	++++							
Pneumococcus Type III	1.	—	—	—	—	—	—		++++
	2.	—	—	—	—	—	—		
	3.	—	++	++++					
B. Coli	1.	—	—	—	—	—	—	++	++++
	2.	—	—	—	—	—	—	++	
	3.	++++							
Proteus Vulgaris	1.	—	—	—	—	—	—	++	++++
	2.	—	—	—	—	—	—	++	
	3.	++++							
B. Pyocyaneus	1.	—	—	—	O	+	++		++++
	2.	—	—	—	O	+	++		
	3.	+++	++++						
Sulfathiazole—mg.	%	60	30	15	7.5	3.75	1.875	0.9375	
Amount of Propylene	cc.	0.1	0.05	0.025	.0125	.00625	.003125	.0015625	

Columns 1 to 7 denote experiments with progressively weaker concentrations of sulfathiazole in mgm. %.
++++ refers to good growth after twenty-four hours incubation; — is no growth; 0 is questionable.
Plain broth, 5 cc. per tube, was used for all organisms except for the pneumococci and streptococci in which brain-heart infusion broth with 0.01 per cent agar in 5 cc. amounts per tube served as culture medium.

Bacteriologic studies conducted with Dr. Dan Hasley, of our Department of Bacteriology at Wayne University, also indicate (Table VI) that a 3 per cent solution of sulfathiazole in propylene glycol has definite bacteriostatic activity against certain organisms, equal at least to that of sulfathiazole itself.

Recent work of Robertson[18] and co-workers demonstrates a potent germicidal effect of 1:2,000,000 propylene glycol in experimental virus infection in white mice.

(This work has been recently shown to hold true in man by Harris and Stokes[19] who found that vaporized propylene glycol would inhibit the action of influenzal virus in concentrations of 1 part to 30,000,000 of air.)

In the light of these findings it seems that application of atomized propylene glycol solutions of sulfonamides[20] may be warranted, especially the spraying of a 3 per cent solution of sulfathiazole in upper respiratory infections. This latter solution has a pH of 6 to 7 when diluted 1:9 with water, is stable in amber colored bottles or when protected from daylight and is usually nonirritant to nasal, pharyngeal, laryngeal and tracheobronchial mucosa. This is a desirable feature associated with pH which is lacking in the commonly employed 5 per cent aqueous solutions of sodium sulfathiazole which have pH values between 10 and 11. The aqueous solutions are unstable and often irritating. The discomfort of burning or smarting after conjunctival instillation of 3 per cent sulfathiazole or 10 per cent sulfanilamide solutions in propylene glycol in man lasts for twenty to thirty seconds and is slightly greater than that caused by 0.2 per cent zinc sulfate solution. Daily application of these solutions for five weeks produces no deleterious effects in either rabbit or dog eyes, as can be observed in Fig. I, suggesting extensive trial in corneal ulceration and other infections of the eye. These solutions have been applied to freshly scarified forearms of human experimental subjects and to wound closures in dogs and man,[21] as well as to almost every accessible mucosal surface, either infected or normal, with very little if any irritation and no delay or disturbance in healing.

FIGURE I

Rabbit's eye after daily application of two drops of 3 per cent sulfathiazole in propylene glycol to the conjunctiva for five weeks. Print made from a colored film indicating absence of pathology.

Subcutaneous and intramuscular injection of 2 cc. quantities of propylene glycol solutions are transiently irritating. The injected area feels hot, stings for thirty seconds or more, and can be readily tolerated, but intravenous therapy is to be preferred if rapid sulfonamidization is indicated. On the other hand, pastes made with tragacanth, methyl cellulose or hydrous wool fat, or just finely precipitated crystals of sulfanilamide in diluted propylene glycol, when injected subcutaneously, are not irritating in dogs or rabbits. Recently we have become impressed with the rapidity with which effective blood levels of sulfanilamide in dogs are attained after intraperitoneal injection of the 10 per cent solution in propylene glycol. This solution elicits slight to moderate transient discomfort in some dogs, none in rabbits and only transient, inconsistent and mild discomfort in occasional rats. We are attempting to determine the irritating potentialities of propylene glycol solutions of sulfonamides when in contact with the human peritoneum, but we do not know these as yet. Our dog experiments illustrate that the peritoneum quickly absorbs sulfanilamide in propylene glycol. Fig. II reveals the blood levels gained after intervals of fifteen, thirty and sixty minutes, as well as at hourly stages thereafter. If one should insert sulfanilamide crystals intraperitoneally at time of operation or inject intraperitoneally adequate amounts of a 3 per cent solution of sulfathiazole or a 10 per cent solution of sulfanilamide in propylene glycol diluted 1:1 with 0.9 per cent sterile saline on two or three successive days following surgical intervention, one might not only maintain an adequate bacteriostatic, if not bactericidal, concentration within the peritoneal cavity, but might

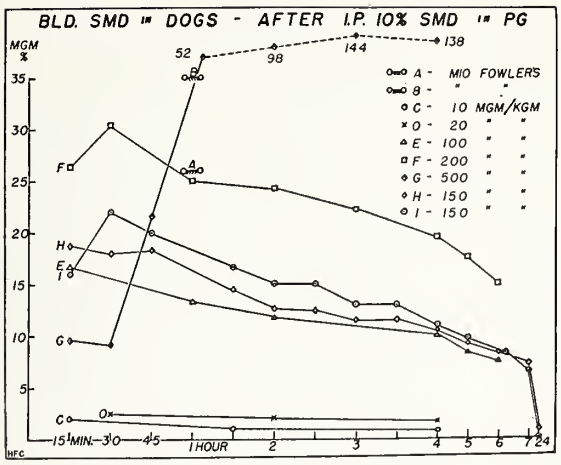
[18] Robertson, O. H.; Bigg, E.; Miller, B. F., and Baker, Z.: Sterilization of Air by Certain Glycols Employed as Aerosols, *Science*, **93**:213 (Feb.), 1941.

[19] Harris, T. N., and Stokes, J., Jr.: Propylene Glycol: Effect of Vapor on Incidence of Respiratory Infections in Convalescent Home for Children, *Am. J. Med. Sc.*, **204**:430 (Sept.), 1942.

[20] Yonkman, F. F.; Craver, B. N.; Lehman, A. J., and Chase, H. F.: Propylene Glycol as a Solvent for Sulfathiazole, *J.A.M.A.*, **118**:1317 (April), 1942.

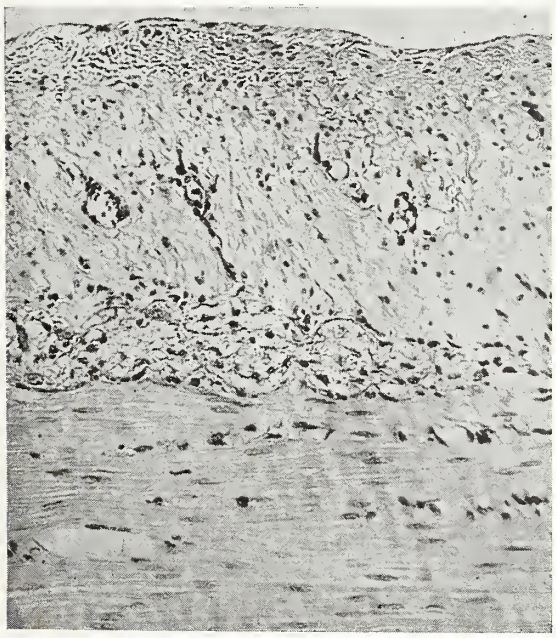
[21] Blackford, Roger W.: Propylene Glycol as a Menstruum for Sulfathiazole with Practical Application to Otolaryngology and Oral Surgery, *Laryngoscope*, **53**:164 (Mar.), 1943.

Figure II.



also early gain and maintain effective blood levels of the sulfonamide. Uniform, injectable suspensions in propylene glycol might be even more desirable in this condition. If the physician has no serious qualms about invading the peritoneal cavity for paracentesis in ascites, why should be hesitate to insert the needle intra-abdominally in peritonitis with therapeutic intent when this technique affords him the opportunity of placing sulfonamides where they will be of greatest value in peritonitis? Should propylene glycol prove to be relatively nonirritating or only mildly but not injuriously so, this vehicle may afford a medium whereby in nonsurgical treatment of peritonitis sufficiently potent solutions could be injected intraperitoneally as long as indicated. This form of therapy can be anticipated if the human peritoneum is no more vulnerable to this preparation, diluted 1:1 than the dog's peritoneum which, according to Dr. M. Maun, of our Department of Pathology, reveals, except on rare occasions, no gross or microscopic evidences of irritation with this dilution (Fig. III). On the other hand, a mild degree of irritation invoking slight inflammatory reaction might be desirable[22] because of the attending leukocytic infiltration.

Figure III.



Microscopic section (x 100) of dog ileum after one-hour exposure to 10 per cent sulfanilamide in 100 per cent propylene glycol diluted 1:1 with physiologic saline solution. Note that the entire bowel wall is normal.

(Since presentation of this material, Dr. F. Singer, Dr. C. Smyth and the author have learned that a 50 per cent suspension of sulfanilamide in propylene glycol produces mild to moderate discomfort when in contact with the human peritoneum. Pathological examination by Dr. S. Gould confirms varying degrees of irritation in some of the patients. However, discomfort is almost entirely absent when 10 per cent benzyl alcohol is added to the preparation prior to abdominal injection. Only a slight cramp or bellyache prevailed from a few seconds to a minute or two. Blood levels of sulfanilamide indicate that this procedure is entirely safe when the preparation is injected in a total dose of 7.5 cc. per patient. These results will be published in detail elsewhere.)

For the treatment of second and third degree burns a propylene glycol solution containing 10 per cent tannic acid and 5 per cent sulfanilamide can be used. This is a compatible solution which can be sprayed on the wound from a fly-sprayer or large-bore atomizer. It does not spray as readily as a 3 per cent solution of sulfathiazole, and in lieu of spraying can be poured over a wound. Tanning will occur, but the wound remains moist, which to some physicians presents a disadvantage. However, the presence of concentrated, soluble sulfanilamide, as long as the wound is moist, may well be a compensatory feature.

A new type of controlled sulfonamide medication for the treatment of burns, abrasions and surgical incisions has been developed in the form of a new pressure-type elastic gauze dressing, in the last year or two, by Mr. R. Bauer and Mr. D. Brady.[23] In this dressing sulfonamides dissolved in propylene glycol plasticize methyl cellulose when sprayed over gauze on a metal or glass plate. The bandage can be autoclaved, applied with moisture, and is elastic, durable and protective. It adheres to moist areas and has the advantages of an eschar without necrotizing viable cells as is the case with tannic acid, silver nitrate and other protein precipitants.

The many other items of interest associated with sulfonamides are too numerous to be included here. Rapid developments and favorable experiences with this class of drugs convince us that the age of "sulfamiracles" is upon us. It is our responsibility to effectively utilize essential information made available to us by critical laboratory and clinical investigation.

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[22] Throckmorton, T. D.: The Peritoneal Response to Powdered Sulfonamide Preparations, *Proc. Staff Meet. Mayo Clinic*, **16**:423 (July), 1941.

[23] Brady, D.; Baur, R., and Yonkman, F. F.: Methalose Gauze and Methalose Powder as Aids to First Aid Treatment, *J. Am. Ph. Assoc.*, **32**:143 (May), 1943.

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AUGUST, 1943

"KICKBACKS"

The *New York Times*, generally considered as not "too friendly" toward the medical profession, under date of June 17 published a report of what is known as the "Moreland investigation." According to the news-story the investigation revealed that some one thousand physicians of New York City had in 1942 received kickbacks from private roentgenologists. This was a split of fees received for x-ray examinations in compensation cases. Four such x-ray men declared that they had paid referring physicians the rather tidy sum of $17,581.00 during the year. These payments were referred to as "division of fees" and as "an accepted practice in the medical profession." The split usually amounted to 35 to 50 per cent of the fee received by the roentgenologists.

And, it is interesting to note, in practically every instance these splits were paid in cash rather than by checks. One specialist stated that he recently had discontinued the practice of fee splitting, although he had been thus engaged since 1924.

Another decided not to continue the fee splitting practice, at least for the time being, explaining that it was "not the proper thing to do, right now," probably referring to the fact that an investigation was on. Several more roentgenologists were to be examined during the hearing, and *The Times* predicted that the "split" would finally reach huge proportions.

This is one of the few instances that have come to our knowledge of a public investigation of one of the greatest evils of medical practice, fee splitting. It certainly is not "an accepted practice in the medical profession," the only acceptance being the taking of the split by the referring physician. Yet it is a far more common practice than is generally supposed. It has so many schemes, so many ramifications that one is put to it to uncover just how far the practice is carried on.

We have known of medical men who "made no bones" about it; they openly declared that they were "bidding in an open market," and were willing to pay, either a flat rate or a per cent, for cases referred to them. In one Indiana city, some years ago, a rivalry of rather huge proportions arose between a group of surgeons for this business. It became so open that it fairly reeked with dishonesty. A book was written about it by a local doctor, in which full details were set out.

We would not undertake a solution of the problem; others have long since failed in this. Great medical organizations have fought this evil, some of them going so far as to deny membership to fee-splitters, yet these very organizations harbor some of the worst offenders. Medical societies, county, state and national, have *legislated* against the evil, to little purpose. Just so long as some physicians remain "commercial," setting the almighty dollar above professional pride, just so long will we have fee-splitting, division of fees and kickbacks. Call it by any name, the meaning is the same and it means a most reprehensible practice.

WAR CHILDREN

The *Indianapolis News*, under date of July seventh, makes editorial comment on a most important war problem—that of the care of the children of mothers employed in the various war industries. As was stated in THE JOURNAL some time ago, this problem is becoming more acute each day. We of the Calumet area, where thousands of our women are thus employed, see at first hand the crying need for some adjustment of this situation.

Welfare heads have sought the proper answer to this problem, but it seems that it has not been found as yet. There are, of course, numerous instances in which such employment is necessary, as in cases of fatherless homes; then, too, mothers engaged as teachers for the greater part of the year find it necessary to take positions in our war plants to carry them over the summer months.

There are, however, far too many women thus employed, simply because of the high wages offered. Their men folk are able to carry on the family expense budget, as formerly, the additional paycheck being used for added luxuries. As *The News* points out, there is no substitute for a mother, and the woman with small children should carefully consider the matter ere she leaves her home and children to the care of others.

PAPER COLLARS

We simply cannot get away from an occasional reminiscence, even though we realize that one who so indulges is commonly accused of more than a moderate degree of senility. This particular subject was brought to mind a few weeks ago when we noted in "The Wake Of The News," a column in the *Chicago Tribune*, a "way back when" question, "Do you remember when paper collars were worn?"

This question stuck in our mind and we have thought about it a lot—about the things that have come and gone since the days when paper collars were quite the vogue. We wonder how many Indiana physicians now in active practice have worn paper collars; we are willing to wager we can name a few. That venerable physician down in Danville, William T. Lawson, of course, knows all about paper collars; and Charley Crampton, up Delphi-way, must have bought them by the box. And we dare say that paper collars were available down in North Vernon, and that William Stemm was a regular patron. So we might go on and on surmising as to the wearers of these indispensable emergency makeshifts.

For, be it remembered, that back in those days public laundries were rather rare institutions; only sizeable cities had them. The parcel post had never been heard of, and mail and express charges were so high that collars could not be sent to the city laundry. Mother got her clothes clean, alright, but she never managed to starch collars to the degree that they looked all right.

We well recall those early days when every lad in Indiana counted the years until he might reach the stage of paper collars. Our dad operated a general store in a small town, down near Wild Cat, and carried quite an extensive stock of these articles of male dress. We could hardly wait until our shirt size had reached the stage where it matched available collar sizes.

And these collars, by the way, were a pretty fair substitute for the linen variety. Of course, the wearer of the paper collar could easily be spotted, but they did a fair job of pinch-hitting when one wanted to dress up. We long have regretted that we did not put away a box of a dozen of the collars, that we might show present-day young blades just what it meant to be dressed in the height of fashion.

If one were careful in the buttoning of these collars and a bit meticulous in keeping them clean, they could be worn a second time. We remember some of the old-timers who made them do service as long as they held together. But down our way the annual Cutler Picnic, given by the Lexington Presbyterian Church, and the Old Settlers Picnic, at Delphi, were the undoing of hundreds of paper collars; rarely did they hold their shape until "basket dinner time."

Later there came the celluloid collars, more expensive, of course, but with a bit of care they would last for many months. Some folk made them last until they had become a dirty yellow color. These were easily cleaned with a damp cloth, never lost their shape and, after they had lost their "factory shine," were quite presentable. They were a hazard in one regard, being highly inflammable, and the wearer who smoked had to be a bit careful lest his pipe or cigar come into direct contact with the collars.

"Paper Collar Days" were the days when Indiana was being founded, days when the groundwork for one of the most prosperous, most notable states was being laid.

Look at the old photographs in the family album; study the pictures of the early pioneers of the Hoosier state; and check the pictures of the leaders in the legislatures of the early days—there you will find many wearers of paper collars.

Those were days when men and women lived the simple life; when questions of moment were decided only after mature deliberation; days when politics was just that, not the conglomerate mass of unintelligible carryings-on we have today. We like to think of those paper collar days, when men were known for what they were—no gloss or veneer, just plain Hoosier country folk.

A COLUMNIST SHOWS INTEREST

That the campaign inaugurated by THE JOURNAL for a more intensive study of undulant fever is finding space in the lay press of the state is indicated by the comment of that erudite columnist and most interesting and descriptive writer, Maurice Early, in his *Indianapolis Star* daily front-page column, "The Day in Indiana." In the issue of July 5 the greater part of his column is given over to the discussion of undulant fever, from the standpoint of a newspaper man. It is evident that Mr. Early has made quite some study of the subject and that he has sought information from authoritative sources.

After quoting from an editorial in the July number of THE JOURNAL, he makes the following comment:

"Records of J. Leonard Axby, state veterinarian, show that 15 per cent of all dairy herds were infected with Bang's disease, the infection that is transmitted to humans and causes undulant fever, when the Federal government took over in 1934. By 1937 the incidence of the disease was reduced to 9 per cent of the dairy herds. Then the Federal government declined to prosecute the eradication campaign further unless the state paid part of the cost.

"In slightly more than three years the Federal government spent $1,000,000 to clean up the dairy herds by paying an indemnity to farmers. The 1939 and succeeding Legislatures have been asked to appropriate $100,000 a year to match Federal funds and prosecute the campaign, but not one cent has been appropriated.

"Therefore there is no record showing the incidence of the disease now. Certainly it has increased, because its control now depends entirely on the initiative of individual herd owners.

"So Indiana has slipped, Dr. Axby says, while the other big dairy states are making progress. Incident-

ally, he says, there have been more inquiries at his office about the disease since the death of Mr. Ford than there were for years previously. At present there is an epidemic of undulant fever among employes of a small southern Indiana meat packing company."

There can be no doubt but that a campaign properly conducted would lead to legislation which would control undulant fever in our state. The country press, if properly advised as to the seriousness of this situation, would see to it that dairy farmers were brought into line and that members of the General Assembly from their communities would vote for the necessary appropriations.

Indiana has met many stock epidemics in the past and has, for the most part, conquered them. No longer does hog cholera decimate our hog-growing areas. Some years ago when the hoof and mouth disease threatened our horses and cattle, the Indiana legislature promptly appropriated something like one hundred thousand dollars for the control of this disease, and hoof and mouth disease affected only those animals. Undulant fever directly affects man as well as the dairy herds.

Here is an opportunity for the medical profession to do a great work; a campaign of eradication of this disease will require a great deal of time and energy, but it is preventive medicine and, therefore, should have the support of the entire medical profession.

Editorial Notes

The state of Indiana seems to be doing pretty well, financially; her cash balance being something like $33,000,000.00. This does not include the Social Security unemployment cash balance, but only the general fund. Already several suggestions have been made as to what to do with this large cash reserve, but what with post-war conditions in the near offing, we predict ways and means will be found to get rid of it.

Some thirty-seven years ago Troy W. Earhart, of Mulberry, Clinton County, was graduated from the Indiana Medical College. He elected to take his intern year at Ancon Hospital, now the General Gorgas Hospital, in the Panama Canal Zone, and remained there until his recent retirement a few months ago when he returned to his native home. Dr. Earhart for many years served as chief of the surgical service in that institution and gained an enviable reputation in his field. He saw the Ancon Hospital grow from a few sprawling wooden buildings, many of them of the shack type, to the present magnificent edifice that now honors the name of one of America's most famous medical men, General Gorgas.

It looks as though we will have to wait a little while longer ere we have at hand the official Acts of the 1943 Legislature. This delay, in the main, is due to a shortage of help in the printing concern which is preparing the books. As soon as these are released, Governor Schricker will issue the formal proclamation, after which the laws are in full effect.

According to press reports, Doctor Frank H. Kelly, of Argus, has hit upon a rather ingenious method of recording blood types. Local volunteer donors come to the hospital where their blood is typed and the classification is "tatyped," as the doctor calls it. That is, by means of a clever little gadget the blood type of the individual is permanently marked in the skin. When a call comes for blood donors it is not necessary to check a list of charts, merely check the "tatyping" of the individual. It should be remembered that the local community is none too well supplied with medical men, hence the plan adopted will prove a veritable time-saver.

Dr. J. L. Callaway, writing in *Southern Medicine and Surgery* for May, is of the opinion that the troublesome affliction, alopecia areata, is seen more frequently of late. He attributes this to several causes, many of which are directly connected with the war. Nervous tension, psychic trauma, chronic fatigue and endocrine disturbances are among the outstanding factors he mentions. He cites a number of cases, each coming under one of the above heads, as to etiology. The treatment is, of course, first directed toward removing the cause, if possible, together with stimulation of the scalp. He has found ultra violet therapy of avail in these cases, plus resorcinol monoacetate, tincture of capsicum, salicylic acid, sulfur precipitate, et cetera, of much value.

Congress is having a little vacation; many of the members having returned to their homes, there to meet, first-hand, their constituents, which is a most desirable thing. This present Congress has of late shown a tendency to do a bit of self-thinking, rather than continue to use their little rubber stamps. And we believe a few weeks with the home folk, where matters can be talked over at length, will further decrease the rubber stamp contingent. It would be well for some of the party adherents to spend a little time with the rural population. Of course, this would mean that they would have to work alongside the farmer in his fields, as the farmer has little time to sit down and chat these days. To our mind, Congress has in the past few weeks shown a more hopeful attitude than for many years past, and we trust that when their sessions are resumed they will have learned much from the home guard.

"No hospital patient need suffer from inability to get food because of rationing." Such is the announcement received under date of July fifth from the Office of War Administration. The OPA is sending to all rationing boards complete instructions in this matter, seeking to obtain a uniform distribution of food in such instances. Complaint had been made by several hospitals that local boards had restricted special allotments of food supplies only in cases in which special diets were necessary. It now appears that hospital patients in general are assured of needed food supplies.

The Indianapolis convention, September 28-30, promises to be an outstanding meeting even though being held during the crux of the war. Plans are to make it a "Navy" meeting; we have had "Army" meetings before, but this year we will feature another branch of our armed services. Surgeon General Ross McIntyre will head a list of Navy notables present for the occasion. We again urge you to make your hotel reservations right now; as we have repeatedly said, Indianapolis hotels are at times taxed to their capacity. A day or two away from your busy routine will pep you up, no end.

The long-expected plastic plates have arrived, THE JOURNAL having received advice from one of our advertisers that in conformity with a governmental request they will henceforth use plastic rather than "blocked wax mold electros"; in fact, the latest advertising from Philip Morris cigarettes will be printed from one of the new molds. This, of course, is an experiment, but with the use of the high quality paper on which our magazine is printed we are hopeful that the results will be good. As the war goes on we will find more and more changes in magazine production.

One of the columnists of the *Indianapolis Star*, writing under the by-line, "Tiny Mite," entertainingly talks of the Old Grandmother type of healer, those dear old souls of the past who knew their "yarbs" far better than the modern medical student knows his materia medica and who spent innumerable hours in collecting nature's remedies and properly storing them against the day when they might be needed. The writer mentions saffron, horehound, catnip, pennyroyal, mullein (the dried leaves to be smoked as a remedy for asthma) and a host of other Hoosier-grown plants, these days generally termed as "weeds." Back in those days one could not pick up the 'phone, call the doctor and expect him to drive in a few minutes later; getting the doctor was a matter of hours at times, and in the interim something had to be done for the patient. It was here that Grandma carried on in her best tradition, and it must be said that many of them did their work well. Many of the older Indiana physicians will tell you of the invaluable aid many of these old folk rendered.

Early reports are to the effect that "fishing is good," in Indiana this year, and that an unusual number of Izaak Waltons have taken advantage of this. For this we can thank the State Department of Conservation, which for years has engaged in a building-up program that is now bearing fruit.

Of all the committees named by the American Medical Association in the past several years, the new Council on Medical Service and Public Relations will receive the undivided attention of all physicians really interested in the future of the profession. The demand for such a committee might be said to have been universal, most everyone agreeing that the time is ripe for a more definite public relations program than we have had in past years. While it is too early to comment on the matter to any great extent, yet the fact remains that this committee has a man-size job before it.

Gone is another Hoosier architectural landmark, the "steeples," seven in number, that adorned the women's building of the Central State Hospital at Indianapolis. These towers are to be razed, since it has been determined that they were fire hazards —this being a part of the post-war program by the state of Indiana. Of late years we often have wondered who was the architect for these buildings, the first state hospital for the mentally ill. We first saw these buildings from the window of a railroad train, more than sixty years ago, and definitely recall the thrill that the imposing building gave us.

Well, we are able to report much progress in our Victory Garden. We are now cashing in on the fruits of our labors of the weeks past. In spite of hell-and-high-water, together with numerous delays due to one thing or another, we now have a good-looking garden, with every prospect of being busy three to four weeks harvesting our crop. It is quite heartening to note the little and big gardens about the town, most of the operators thereof doing a pretty fair job of it. Literally tons of food stuffs are being raised about our city, most of which will find its way to storage places, come next October or November, to await its role in the fight against food shortages that are so persistently reported these days. We are not content to believe, however, that a food shortage of any sort, in this country, was a necessary thing. Had we had at the head of several departments *men who knew what they were talking about*, rather than a group of inexperienced, crack-pot theorists, there could be no shortage. However, the thing to do now is to preserve every bit of food possible· get it on your shelves and await the oncoming non-growing season.

Pharmaceutical manufacturers have announced that as of June first they hope to have on the market a substitute for quinine, under the name "Atabrine." This drug is declared to be far more potent than quinine and will, for the most part, be processed by an Indiana concern.

It is reported that other communities and states are interested in the new Indianapolis Isolation Hospital, to the extent that they have sent representatives to our capital state to study the layout and plan of operation, with a view of establishing a similar setup in their home communities. It does seem that the Indianapolis plan is a near approach to a solution of a most vexing, as well as serious, municipal problem.

Having served a community for a full fifty years was the privilege of Dr. Charles C. Crampton recently when he observed the fiftieth anniversary of his graduation from medical school, on Tuesday, June 22. A community of which he has become such an integral part will never forget a man like Dr. Crampton, who is as young today as he was nearly fifty years ago when he set out with horse and buggy to bring his first baby, and his mother walked the floor the night through in a fit of worry. Dr. Crampton attended Notre Dame and graduated from the Purdue School of Pharmacy in 1891. He received his M.D. degree from the Kentucky School of Medicine on June 22, 1893, after graduating from the Physicians and Surgeons Medical College in Chicago in 1892. He served in England, France and Germany with the AEF in 1918, and remained in Germany with the Army of Occupation following the armistice. Dr. Crampton is past commander of the American Legion, past president of both the Monon and Wabash Railroad Surgeons Association, of the county medical society, and of the Eleventh Councilor District of the state medical association. Dr. Crampton's great ambition is "to be a doctor" and to "continue my practice." Favorite comic strips are "Dick Tracy," "Orphan Annie," and "Joe Palooka." Dr. Crampton was presented with an anniversary gift from the physicians and surgeons of the Arnett-Crockett Clinic, in Lafayette—a beautiful diamond pin denoting that he had served as Legion commander. Dr. Crampton wouldn't be himself without a good story. Said he recently, "I have brought lots of babies in my lifetime. In one case that I think of I brought the grandmother, and as yet she has not been paid for. Then I brought the mother, who also is still on the books in red. And several months ago I brought the baby, the third generation in the family, and, by gum, if they aren't threatening to pay me for bringing that baby. But I'm standing out strongly against it and not encouraging settling the bill in any way because 'look what a good story it would spoil.' "

From all reports it would seem that the American military forces in Africa have thus far escaped the menace of typhus fever, which might be said to be raging in certain foreign countries.

An official communication has come from the War Food Administration, under the date of July seventh, concerning two rationed foods — canned milk and certain fats and vegetable oils. Regarding the former, we are advised that the large can of milk, 14½ ounces, requires one red point, or two small cans can be secured for one red point. If, however, an infant's food requirement, including canned milk, meats and fats, is over the number of points allowed — 16 per week — application may be made for an additional quantity, this application supported by a statement from a regularly licensed physician. The same rule applies, of course, to elderly folk accustomed to the use of canned milk. As to certain oils and fats, another provision is made. Physicians who use oils for bathing newborn infants, such as cottonseed oil, et cetera, or in the management of certain skin diseases, urethral injections and the lubrication of urethral instruments, or for x-ray visualization, may obtain said oils under the definition of "industrial consumption." In all cases application is made through the local rationing boards.

We often have wondered what the one-time operators of the several medical diploma mills were doing, now that this racket has been pretty well eliminated. Time was, and not too long ago, when it was possible, for a varying fee, to obtain a highly ornate diploma, declaring that the person named thereon was a duly graduated doctor of medicine. There were several of these schools that persisted long after the Council on Hospitals and Medical Education clamped down on fake schools, as well as those not physically equipped to furnish a modern medical education. Three of the most notorious were in Missouri, one or two in Chicago, one in Connecticut, one or more in Boston, to mention specifically but a few. But these are practically extinct now, and our query was as to what the former operators were doing, knowing that they would be loathe to give up such a lucrative business. The Indianapolis Better Business Bulletin answers our question in part. It states that there are two Chicago diploma mills that recently have come under the ban of the Federal Trade Commission. One of them offered degrees in law, the other in short-story writing. According to the findings of the Commission, the Blackstone College of Law "offered diplomas and degrees of various kinds merely on the payment of stipulated sums of money and without the fulfillment of reasonable scholastic effort or course of study." It seems that the two corporations had the same business address and the same set of officers.

The death rate of the war casualties in the American forces continues to be surprisingly low. Never before in the war history of our nation have our armed forces been so well taken care of, medically, as at the present time. And we do not overlook the fact that our nursing program is the best any nation has ever had, which materially adds to such an excellent mortality report.

A Vox Pop contributor to the *Indianapolis News* comes very close to expressing our sentiments regarding the Federal tax situation, when he says:

"I am an American. On January 1, I had quite a shock. I had earned a full year's pay for work I enjoyed doing very much. But I found that my Uncle Sam wanted quite a cut of it. He is in trouble up to his ears. And if Uncle did not get this money we might all be hunting new jobs, and new homes. So, after talking it over with myself, I ups and pays one quarter.

"I thought, now, June 1, I will see that Uncle gets some more on account. But what happens? Well, the news sounds like a broken record. Taxes forgiven—no—yes—no—yes—part—all—deduct from salary—no pay this second quarter—forgive third and fourth.

"If anything will slowly kill one, it is waiting to see how the operation turns out. So why doesn't Washington either quit shaking its head or speak English?"

The Waste Fat Saving Committee, an official organization, sends out a bulletin asking that the homes of physicians set an example in waste fat salvage and that the physicians preach this gospel to their clientelé. To our mind, this is a very important matter, this thing of fat saving. As is generally known, there is an enormous shortage of fats in this country; no longer do we import shiploads of fats and oils as we were wont to do in normal times. Soap production must, of course, go on; certain amounts of fats and oils must be included in our daily diet, but fats and oils also are vitally necessary to the winning of the war — our one big job. The place to start saving waste fats is right in the kitchens of the American homes; every family should have what our Tobey calls a "government grease" can. When Tobey came to take charge of our culinary department, the very first question she asked was "and which is the can for 'government grease'?" The average family continues to waste fats and oils, and only by continued publicity may we expect to stop this waste. In this program doctors can help, first at home and then by insisting that their patients take full recognition of this great necessity.

THE AMERICAN FERMENT

"Speaking at a dinner to Dr. J. Stanley Kenney, president of the New York County Medical Society, on May 19, Dr. Nathan Van Etten, past-president of the A.M.A., said, in part:

'The great melting pot of civilization, which is the United States of America, has often been overheated during the years of Dr. Kenney's experience.

'Modern medicine and the revelations of science have upset empiric traditions, so that he is now engaged in studying new therapies—new methods for restoring the sick to functional usefulness and new ideas to enlist community support in the prevention of disease.

'New social forces have risen to disturb medical evolution by violent explosions which are impatient of normal adjustment. Elements unfriendly to the medical profession have been in power for ten years, upsetting the peaceful progress of a great nation by erecting powerful bureaus, which rule by fascist decree, which do not serve the people, but who command the people to serve them.

'Although the medical profession has voluntarily enlisted fifty thousand of its young doctors in the service of the war emergency, it is reviled for lack of support of the whims of idealists who claim to be interested in new distributions of medical service.

'Mr. McNutt shakes his fist at the physicians of the country in June at Atlantic City, Frances Perkins calls them obstructionists on January twentieth, and Mrs. Roosevelt gnashes her teeth and tells doctors on the third of May that if they do not voluntarily conform to the wishes of autocracy they will be compelled to do so.

'No longer are our elected representatives—whose wages are paid by the taxpayer—no longer are they our servants, but they are our masters. No longer does the State serve us, but we slavishly serve the State.

'Let us not forget that this unfortunate situation is the result of fermentation by agitators who have long been working at every social level, and that widening cracks are appearing in the surface and in the foundations of our economic, religious, and social systems, which may engulf us.

'Civilization is sick! It needs good doctors. Shall we be equal to the task of doing our part toward preventing complete destruction of what we have been proud to call American Democracy?

"The answer to this question is, 'YES, if we will wake up and work.' "

—*New York State Journal of Medicine.*

Annual Convention

INDIANA STATE MEDICAL ASSOCIATION

INDIANAPOLIS

September 28, 29 and 30, 1943

President's Page

THE WAGNER-MURRAY-DINGELL SOCIAL SECURITY PLAN

I wonder how many members of the Indiana State Medical Association have read this bill and know its full importance to the medical profession. If you have read it, have you analyzed that portion of the bill which has to do with the practice of medicine, as it will be carried out should the bill become a law in these United States? Nowhere in the bill does it pretend to ask organized medicine for its advice or ask what it thinks are the best means to be employed in executing the plans of the law. Reading between the lines, it looks as if medicine, as it is organized at present, would be snuffed out of the picture, i.e., the American Medical Association and the state, county and special societies. The project is to be set up under the Surgeon General of the Public Health Service and a group to be known as the "National Advisory Medical and Health Councils," to be composed of sixteen members, these members to be appointed by the Surgeon General of the Public Health Service. It would be interesting to know what the Surgeon General of the Public Health Service thinks of this bill, inasmuch as he seems to be the one who is to carry out the working plan of the law if passed, as well as being the director of the service to be rendered.

It has already been noted that the President of the American Federation of Labor has given his full sanction to this legislation, by saying, "This measure is the most comprehensive attempt yet made to establish post-war security in this country, and this organization will give it full support."

There are to be disability benefits plus medical care. The hospital benefits which are to be written in this bill are to be not less than three dollars per day nor more than six dollars per day, as well as laboratory and such other special fees as are necessary. The administration of this bill is to be carried out by a panel of physicians who have signified their willingness to participate in this insurance program; in other words, panel medicine is to be foisted upon the American public.

The Surgeon General of the Public Health Service will be authorized to take all necessary and practical steps to arrange for the availability of the medical, hospital and related benefits.

It is hardly conceivable that Congress would pass a bill like this in face of the fact that between fifty and sixty thousand physicians have volunteered their services to the armed forces and are away from their active practice of medicine. If such is the intent of Congress and the administration, it behooves every member of the association to talk to his congressmen and senators about this legislation. We owe it to every physician in the forces, to ourselves, and to the public, to see to it that this type of legislation is defeated. I advise that you read the editorial in THE JOURNAL of the American Medical Association, June 26, 1943, Vol. 122, pp. 600-601, and the Wagner-Murray-Dingell Social Security Plan, THE JOURNAL of the American Medical Association, June 26th, 1943, Vol. 122, pp. 609-611.

J. H. McCarty

FOOD INTOXICATIONS AND INFECTIONS

THURMAN B. RICE, M.D.,
Secretary of the Indiana State Board of Health
INDIANAPOLIS

We doubt if there is a more important subject at the present time than that which has to do with food. Almost everyone is talking about ration points, "black markets," nutrition and related subjects. The ordinary individual, of course, is mainly concerned with the matter of food from the standpoint of nutrition. He or she is anxious to feed the family the proper vitamins and other food ingredients in order that they may be maintained at a high state of nutrition. The public, of course, does not give very much thought to the matter of the safety of the food for the reason that for many years past we had very little trouble of this sort and have come to take for granted the assurance that food is at least reasonably clean, and well refrigerated. There is a situation arising, however, which is very far from being optimum and is one to which the public and the profession should begin to give a great deal of thought. We refer to the *quality* of the food from the standpoint of *safety*. There have already been several unpleasant episodes over the state due to the fact that food was spoiled, and there are sure to be more such accidents unless precautions are taken against certain dangers which are becoming more and more apparent.

At a time when there is a shortage of food it is only human that those who have inferior products for sale will try to pass them off and sell them as first grade articles. This means that there are a great many products coming on the market at the present time which in normal conditions would not be offered for sale. For example, there is a strong temptation to offer submarginal milk to the public and to insist that it not be wasted, in view of the present shortage, by being used for animal food. Furthermore, with the very considerable shortage of labor that we have at the present time, there is a strong tendency for people handling food to say that they are so short of help that they cannot process foods in the careful ways that have been customary heretofore. This is all the more dangerous in the light of the fact that there is a shortage also of critical materials, and it is sometimes impossible to get the most modern food-handling equipment. Also, the old equipment is frequently in need of repair and so does not give the results that might be expected of it. For example, a great many refrigeration plants, both domestic and commercial, are in need of repair at the present time and are being used at a low level of efficiency. A great many home refrigerators are definitely in need of being replaced, yet will have to last for the duration. Likewise, there is a possibility that some of the locker plants which are scattered around over the state will have considerable difficulty in maintaining an adequately low temperature during the hot summer weather.

Restaurants, hotels, barbecue stands, soda fountains and lunch counters in drug stores are having difficulty in getting employes who are well trained and capable of taking care of such establishments. If one looks about him as he eats in public places he notices that the waitresses seem to be younger. That means, of course, that these persons are inadequately experienced or trained and, therefore, more prone to be careless and make mistakes. Furthermore, the proprietor can not afford to discipline these people sharply as he might in other times for fear that he will lose their help entirely. Several times recently we have noticed unsanitary practices in such eating establishments. A survey which is being made by the United States Public Health Service, under the auspices of the State Board of Health, seems to indicate that restaurant conditions in Indiana are pretty bad. In fact, one may say that in some places they are terrible.

Such being the case, it behooves the public and the profession to be on the alert. The public should keep its eyes open for evidences of uncleanliness and the like, and should call the attention of the proprietor to any instances that are noted. We must bear in mind, of course, that the really serious dangers are not such as can be observed directly by the individual sitting at a dining table. They are to be found in the kitchen, but, of course, he does not usually have access to the kitchen. The public should know, too, that there is no infallible criterion by which we can recognize bad food. To be sure, when food is seen to be definitely spoiled or gives the appearance of being unfit for food it should not be eaten, but on the other hand it is very important for everyone to know that he cannot by tasting, looking at, or smelling food determine that it is safe. The bacteria which are really harmful can be present in dangerous amounts without causing the least deterioration in the apparent quality of the food. It is necessary that everyone should understand this because it is very important, but it seems to be a very hard lesson for people to learn. One bad attack of food poisoning, however, will prove very convincing.

From a practical standpoint—and we are trying very hard to be practical in this instance—it is possible to classify food poisoning or food infection into four groups. We do not wish these groups to be considered as absolutely inclusive of all dangerous germs. As a matter of fact, there are a few minor ones in addition to these, but these four

big ones will include probably 98 or more per cent of all cases of food infection or poisoning. Furthermore, in this place we are not trying to be highly scientific but are trying very hard to be strictly practical so that the physician may know as soon as possible, even when no laboratory is available, what the situation is and apply the appropriate measures.

First. Botulinus poisoning, or botulism, is the first one to be considered. We are choosing it first not because it is most prevalent but because it is capable of being set out in very definite and exact terms. This intoxication is due not at all to the germ itself but to the poison produced by the germ, Clostridium botulinum. This germ is one which produces a spore, making it exceedingly hard to kill by heat or chemicals. The spore will frequently withstand as much as two hours of boiling. It is, of course, killed by the temperature usually applied when a pressure cooker is used in canning. The products involved are practically always canned, or at least sealed, so that air cannot get to the germ. In order to grow and produce its toxin this germ must be in anaerobic condition. The germ can grow at room or cellar temperature but requires several weeks or even months before the food in which it is growing really becomes dangerous. In order to produce toxin it must grow in a nonacid food, food that is either slightly alkaline or neutral in reaction, preferably slightly alkaline. This means that there is no danger whatever from canned cherries, peaches, tomatoes or such other fruits as would fall in this group. The danger lies in those nonacid products which this summer are being canned in unusually large amounts, namely, beans, peas, corn, spinach, carrots, vegetables of various sorts and occasionally meats. *Those products should preferably not be canned in the home unless a pressure cooker is available.* It is true that many housewives will get by with other methods, but they are running a very considerable risk if a pressure cooker is not used. All such foods, whether canned by other methods or pressure cooking, should be thoroughly heated to boiling before being served. This is due to the fact that the poison which is so very deadly is destroyed by boiling for fifteen minutes. The product should not merely simmer, but it should actually come to real boiling and be held at that point for several minutes. In such case the danger is very greatly minimized (or it is generally supposed that it is completely removed). Inasmuch as this toxin is extraordinarily poisonous, we certainly would not wish to narrow the margin of safety by heating only a short time.

The symptoms of botulism are quite definite. In the first place it requires several hours—eighteen to thirty-six—for the toxin to fix itself on the body tissues. These toxins attach themselves to certain of the nervous tissues and produce neurological symptoms. This requires some time, and so the disease does not develop as promptly as in another type of food poisoning caused by the staphylococcus toxin. As a rule other food has been eaten after the bad food was taken. Nausea and vomiting are often seen, and in such case the food found in the vomitus is likely to be falsely accused. The really significant symptoms are all neurological, and there is usually a complete absence of intestinal irritation or infection. This point is extremely important because the fact that there are no intestinal symptoms very frequently has the effect of throwing the physician off his guard and making him think that it could not possibly be a food infection. These people suffer from various hallucinations, double vision and other neurological manifestations, such as are easily checked by reading any standard textbook of medicine. It is not our place here to attempt a full description.

There is an antitoxic serum against this infection, but it rarely can be obtained in time to be useful. This serum is practically worthless for the reason that it is useful only when it is given at approximately the same time the food is taken. Ordinarily this is quite impossible, for as a rule the toxin is already fixed to the tissues before diagnosis can be made. The only time that the serum could possibly be of any use would be when someone has eaten food which perhaps twenty-four hours previously had been eaten by another person who is now ill. In such case the second group might be given the antitoxin and some benefit derived from it. There is no need to give this antitoxin after the symptoms have developed. This type of intoxication can easily kill an entire family. As a matter of fact, a very potent can of beans or corn might have enough toxin in it to kill thousands of people. It is evident, then, that if a family should eat freely of such food, every member would probably acquire a fatal dose. For example, there is a case in the literature of a man who died after nibbling a half bean pod an inch and a quarter long. He was warned and then tried to spit out the material, but even so he died of fatal poisoning. It is therefore evident that if anyone gets a real dose of this poison, he is probably beyond hope. When recovery occurs it is usually complete and fairly prompt, so that there are no bad effects, so far as we know, from poisoning of this kind after recovery occurs.

Second. Stapyhlococcus toxin is a cause of food poisoning which deserves a great deal of consideration at this time for the reason that it seems to be increasing. Actually, it probably is not increasing, but we appreciate it better in recent years. In times past we have probably supposed that infection of this sort was due to the next group which will be described, and the appreciation of the staphylococcic role is therefore rather recent. Staphylococcus, of course, is the germ that causes boils, pimples and minor wound infections. There are many strains of the germ, and by no means are all of them toxin producers. Which strains are capable of producing a dangerous toxin it is impossible to say until after the case has occurred. It is for this reason that persons with sore fingers

should not be handling food. In recent years the Army, for example, has been very careful not to permit soldiers with sore hands to serve K. P. duty. This is a wise precaution and has undoubtedly helped a great deal. The staphylococcus grows luxuriantly especially in foods that are somewhat fatty. This affinity doubtless explains why it grows so well in the sebaceous glands of the skin. It also, to some extent, explains its tendency to cause osteomyelitis since the bone marrow is quite fatty; surgical infections in fatty tissues are well known. Foods which contain fat or oil, provided it is not excessive in amount, are particularly subject to this growth. It is well known that certain foods are very prone to cause an acute form of food poisoning. Cream puffs and chocolate eclairs, in times past, have been particularly often involved. As a matter of fact, the cream puff is considered to be a bakery product and therefore is not refrigerated as it should be. A cream puff can become a veritable biological bomb. Hollandaise sauce, which is frequently used as a dressing over vegetables, particularly asparagus, is made of butter, egg and cream. It contains no acid and therefore is an excellent culture medium for staphylococcus. Recently we have had a case of food poisoning in a restaurant due to the ingestion of a custard pudding which, of course, contains egg and milk and therefore has enough fat and protein for the staphylococcus to grow luxuriantly. Tenderized or precooked hams are also very subject to this danger. When hams are tenderized the brine solution is injected into the arteries and therefore pervades the entire joint. If this apparatus or injection solution becomes contaminated with staphylococcus the germs are injected unintentionally throughout the entire piece of meat, and then if it is not properly refrigerated the ham becomes exceedingly dangerous.

The dangers implied above are not from the germ itself but from the toxin produced by the germ. Unfortunately this toxin is heat-stable, that is, ordinary cooking does not alter it very much although it may weaken it somewhat. Such being the case, cooking which will kill the germ but not destroy the toxin will still permit the meat or other article of food to remain dangerous. When physicians are familiar with this type of food poisoning they have little difficulty in making the diagnosis. The incubation period is very short indeed—two to four hours. The individual becomes ill in a most dramatic and striking way. He may utterly collapse and does so rather promptly after eating the food. He vomits severely, as a rule, and may undergo a very marked degree of shock. As a matter of fact, he may die in this initial phase of collapse. If he lives through this initial period he will usually recover entirely without sequelae. As a matter of fact, in a large proportion of the cases the individual is quite well again in twenty-four to thirty-six hours. During the first few hours, however, he may feel that his chances of recovery are very slim. Recently a case died within six hours from the time that some ham was eaten. Diarrhea is often present but is probably due to the fact that food spoiled in one way is likely to be bad in another, inasmuch as other bacteria are often present.

There is no specific treatment for this intoxication. The physician will do everything he can to protect the patient while he is in this condition of shock or collapse. However, in a number of instances the individual is near death before anyone realizes that he is dangerously ill. From a practical standpoint utmost precaution should be taken by houseowners and restaurant keepers to make sure that everything that is of a nonacid nature and contains some fat be refrigerated so that there is no chance that staphylococcus could develop as toxin. It apparently is possible for the toxin to be produced in a very short time. In a recent case some custard pudding made between eight and nine o'clock in the morning was dangerously poisonous at noon. This pudding had been left out in very warm, humid weather and, of course, was warm to start with so that the germs evidently germinated and developed toxicity in a very short time. As a rule an epidemic of this sort will show a common factor very promptly. A careful survey of the persons who are ill will usually spot one or another of the foods that has been mentioned. We might also mention that certain other foods seem to be a little bit more than usually prone—chicken salad, for example, or ham salad and meat loaf that has not been thoroughly cooked to the center or has not been refrigerated after being cooked. The meringue that is sometimes used on pies is another food which should be viewed with suspicion. Cream pie has been guilty.

Third. The form of food infection so characteristic of earlier times is usually due to the colon group of organisms. To this group belong a great many germs which already have very bad reputations, as, for example, the germ of typhoid fever, dysentery, infantile diarrhea and others. Particularly important are the members of the salmonella group, or the so-called "hog cholera" group. These germs are found in the alimentary tract of human beings and of various other animals, such as rats, mice, cockroaches and the like. The germs are usually transmitted by dirty fingers, flies, unclean methods of handling food, contaminated water, milk and such other foods and products as have already received a great deal of attention in the campaign against typhoid fever and dysentery. When these germs are eaten in uncooked food and are *alive* they cause a continuing infection which may last for a longer or shorter time and, of course, require some incubation period—at least two or three days or as long as two weeks.

The infection is or is not serious, depending on what the germ is. If it is typhoid fever or dysentery, then, of course, we have a major disease from the beginning. However, these germs are in varying grades of virulence, and, if we happen to get some of the lesser virulent ones in the group,

the infection is not at all serious and may simply go along more or less as a mild diarrhea for a few days, and then there is complete recovery. When this kind of germ is eaten in cooked food, we have a somewhat different picture. In such case the number of germs is often large because people are more prone to eat heavily-contaminated food if it has been cooked than if it were uncooked. In such a case one gets a large number of *dead* germs, and these germs, unfortunately, are still poisonous although they are dead. They are poisonous because the body of the germ itself is poisonous. This is the so-called "endotoxin," as opposed to the exotoxin or toxin which has been described in the case of the botulinus organism or the staphylococcus. All these cases, whether the germs are dead or alive, manifest themselves as a gastro-intestinal irritation. There is marked diarrhea; there may be vomiting, although not always, and there is pain and tenderness in the abdomen. Tenesmus is usually marked and the patient is thoroughly "knocked out" for two or three days, but does not suffer the quick collapse that is seen when the staphylococcus toxin is at fault.

In other words, this is strictly a gastro-intestinal affair, and therefore everyone is almost sure to think at once of food as the cause. It is often very hard to trace the food, however, inasmuch as the long incubation period has allowed the food to be completely out of the way and probably forgotten, so that in infections of this kind it is common experience that we are not able to trace the source of the disease unless the source has continued to affect others. This is, of course, the old-time diarrhea or "bellyache" that was so common among children, and adults too for that matter, a generation or so ago. There has been very marked improvement along this line since that time, and we are much less familiar with this type of disease than were our professional brothers of thirty or forty years ago. It is very easy to make a diagnosis here although it may be difficult to put one's finger on the particular food that is involved.

Fourth. There is the group of diseases which will become increasingly common now that "black markets" are nearly sure to become a common sanitary, sociological and economic evil. In this group belong those diseases which arise from the fact that we have eaten the flesh or milk of a diseased animal. If, for example, an animal is definitely ill and is sent to the regular slaughter house, that animal will usually be intercepted and will either be destroyed or sent back to become well, or more often the meat will be condemned and will go into tankage. It is hard to suppose that the "black market" operator would have so much conscience. He would slaughter a hog, for example, that was at the point of dying of cholera. In such case, that meat can be very dangerous, acting very much in this instance like one of the diseases of the third group which we described. Cattle with pleuropneumonia or cows which have just aborted and are septic may be sold to the "black market," and the diseases which result from eating such meat are, of course, quite varied. It would be utterly impossible to describe or to classify the symptoms of the intoxication or infection which arise from this source. We can only mention it in a general way and hope that physicians and other intelligent persons will do everything in their power to fight against the "black market" products. They are not only wrong from the standpoint of economics but extremely dangerous from the standpoint of health. Furthermore, such animals as go to "black markets" are usually slaughtered in inadequately-equipped slaughterhouses. Very likely the meat is improperly refrigerated and the premises unclean. Almost any sort of contamination might come as a result of this method of handling meat. Then, of course, somewhat related to this is the fact that milk from cows which are suffering from contagious abortion, mastitis or garget may be dangerous. It is extremely important that all such milk be pasteurized and that it be handled in a cleanly manner before pasteurization.

We have been told by various persons that food will win the war. As a matter of fact, this statement requires a very definite revision. We should say that *good* food will win the war. *Dangerous* food could conceivably tend to lose it for us. It is a patriotic duty for the profession and the public at the present time to do everything possible to make the food that we have as safe as possible, and to spread it about so that everyone will be properly nourished. We anticipate a great deal of trouble from bad food in the next few months unless utmost care is taken on the part of every single individual, whether professional or lay.

Again we call your attention to the Instructional Courses at the annual session of the Indiana State Medical Association, listed on page 363 of the July, 1943, issue of THE JOURNAL. A number of requests have been received, but more interest will have to be shown if the committee is to feel justified in giving these courses. August tenth is the deadline for your reply. Sign up immediately!

PHYSICIANS TO FILE DECLARATION OF ESTIMATED INCOME TAX BEFORE SEPTEMBER 15, 1943

WILL H. SMITH
Collector of Internal Revenue
INDIANAPOLIS

Physicians, dentists, and all other individuals who receive their income from professional fees are required to file a Declaration of Estimated Tax for 1943, based on the probable income for the year and the estimated deductions, on or before September 15, 1943. Credit may be taken against the current tax liability for the payments made on the 1942 assessment; one-half of the remaining current tax liability will be due September 15, 1943, and the other half will be due December 15, 1943. The declaration for subsequent years must be filed on or before March 15th of the current taxable year and payments made quarterly on the estimated tax declared thereon.

In the event the Declaration of Estimated Tax is underestimated, an amended declaration can be filed on any subsequent installment date during the year. A final and complete return must be filed on or before March 15th, following the close of the taxable year, and any necessary adjustments between the actual tax liability and the payments made on the basis of the estimated tax will be made at that time.

In order to avoid a penalty assessment for underestimating the estimated tax declared, the estimated tax is required to be as much as 80 per cent of the actual tax for the year. If 80 per cent of the actual tax exceeds the estimated tax, there shall be added to the actual tax an amount equal to such excess, or equal to 6 per cent of the amount by which the actual tax exceeds the estimated tax, whichever is the lesser. In the case of failure to make a Declaration of Estimated Tax within the time prescribed, a penalty of 10 per cent of the tax shall be added.

The Act provides that 75 per cent of the 1942 or 1943 tax, whichever is the lesser, is forgiven. Providing the 1942 tax is the lesser, the 25 per cent liability which is not forgiven is payable in two equal payments, one on March 15, 1944, and the other one on March 15, 1945. The forgiveness, when the 1942 tax is the greater and also the additional forgiveness made to members of the armed forces, will be made in accordance with the provisions of the Act at the time of filing the 1943 estimated declaration and the final filing of the actual return for 1943.

The 1943 Act does not impose any additional tax upon the taxpayers, but the taxpayer pays his tax currently, based on his current income. At the time of filing the actual return the taxpayer is allowed all of the allowable deductions as allowed in filing his returns for previous taxable years. The tax liability for 1943 will be computed on the same rates and exemptions as applicable on the 1942 net income, with the exception of the 5 per cent Victory Tax.

MATERNITY AND INFANT CARE FOR FAMILIES OF MEN IN ARMED FORCES

ROBERT E. JEWETT, M.D.*
INDIANAPOLIS

Applications sent by physicians for aid to the families of enlisted men are pouring into the Indiana State Board of Health at the rate of one thousand per month. The very limited administrative staff is having difficulty keeping up with routine acknowledgments, and the flood of additional questions from the profession bids fair to become the tide that sinks the ship.

The articles in the June and July issues of THE JOURNAL and the bulletins of June 14 and July 1, issued by the Bureau of Maternal and Child-Health of the Indiana State Board of Health, contain the answers to most of these questions. Nevertheless, certain points seem to need reiteration:

1. Authorization cannot be made for services rendered prior to the date of application except in emergencies when application is submitted immediately with an explanation of the circumstances.

2. Sixteen hospitals have not yet established a ward rate agreement with the State Board of Health. When one of these hospitals is designated on the application, medical care only can be authorized.

3. Fees for professional services must be in exact accordance with the schedule adopted by the Medical Advisory Committee.

4. Reports of professional services should not be submitted until all authorized care is completed. These reports are used only to determine fees according to the official fee schedule.

Please read all bulletins and forms carefully, and watch THE JOURNAL for necessary and official changes in policy.

* Director of the Bureau of Maternal and Child-Health of the Indiana State Board of Health.

OFFICE OF CENSORSHIP REQUESTS CAUTION IN PUBLISHING UNCENSORED LETTERS

The following statement appears in *The Journal of the American Medical Association* for June 19:

"A letter from the Office of Censorship in Washington requests the editor of *The Journal* to call the attention of editors of state medical journals and of the bulletins of county medical societies, particularly, and also editors of all other medical publications to the fact that it is exceedingly inadvisable to publish uncensored letters coming from doctors in the service, particularly when they include the addresses of the physicians. Already in several instances such letters have served to reveal the identity of troops overseas. *The Code of Wartime Practices for the American Press* calls attention to the great danger that is inherent in this practice.

"All publications are particularly requested to avoid identification of soldiers with their troop units when they are overseas, about to embark or on defense (as distinguished from training) activities in the United States. In the case of Naval personnel the identification of ships and bases is to be especially avoided. Editors of all publications will, we are sure, do their utmost to co-operate with the Office of Censorship in Washington, since the revealing of units to which physicians are attached may be of great value to the enemy in determining the character of the armed force with which it has to deal. When in doubt, editors will do well to get a direct response from the Office of Censorship regarding the release of any special item."

ABSTRACT: RECENT AMENDMENTS TO FOOD RATIONING MEET NEW NEEDS

Recent amendments to food rationing orders, involving osteopaths, condensed milk, fats, oils and hospitals, are summarized in *The Journal of the American Medical Association* for July 17 as follows:

The Office of Price Administration announced on July 2 that any medical practitioner authorized by the state in which he practices to prescribe all internal drugs is also authorized to certify that a person requires supplementary food rations for health reasons. Authority to make such certification was previously confined to doctors of medicine. OPA has now broadened the authority so that osteopaths in states which license osteopaths to prescribe all internal drugs may also prescribe supplementary food rations. Food rationing regulations provide that a person whose health requires more rationed food than his ration points permit him to buy may apply to his local board for necessary additional points. In some illnesses foods are prescribed in addition to drugs or medicines, or as a substitute for them. In some counties the work of ration boards in processing such applications has been much simplified through the voluntary help of the doctors themselves. By establishing panels to review all medical certifications and to advise the boards, responsibility for issuing extra rations for health reasons has been kept on a professional level.

The Office of Price Administration, under date of June 1, placed evaporated and condensed milk on the list of rationed products. These types of milk are added to the group of rationed foods containing meats and fats, for which red ration stamps are needed without any increase in the total number of points allowed for this group. One point is required for one 14½-ounce can or for two 6-ounce cans or for two 8-ounce cans. This means that the child may use 7 of his 16 points per week for his milk requirements in terms of evaporated milk, which allows slightly less than the equivalent of a quart of whole milk per day, and have 9 points remaining for his meat and fat requirements. An invalid or any other person whose health requires that he have more canned milk than he can obtain with the stamps in his War Ration Book II may apply at his local War Price and Rationing Board for additional points. The consumer must submit a written statement of a licensed physician, showing why he must have more canned milk, the amount needed during the succeeding two months, and why unrationed foods cannot be used instead. A supplemental allotment to acquire canned evaporated and condensed milk needed by a hospital to meet the dietary needs of its patients may be obtained on application to its local War Price and Rationing Board. It is understood that if the present method of rationing does not make evaporated milk available in all areas for infants and children, some more effective method will be worked out.

The Office of Price Administration has issued an amendment to Ration Order Number 16 (R. O. 16, amendment 25) which permits the use of rationed fats and oils for external therapeutic purposes. This includes the use of vegetable oils, such as cottonseed oil, for bathing newborn infants, for external application in skin diseases, for urethral injection or lubrication of urethral instruments, and for x-ray visualization. Such use of rationed fats and oils is defined as "industrial consumption" and persons using these products for such purposes are classified as "industrial consumers." An industrial consumer engaged in the care and treatment of the sick and needing rationed fats and oils for this purpose may apply to his district Office of Price Administration for a certificate with which to acquire them. The procedure to be followed briefly is as follows: The application should be made on form R-1605 to the district office. If the applicant is a hospital, the district office will pass on the application by using the same method of computing allowances as the local boards use in computing allotments for industrial users; otherwise the application will be forwarded to the Washington office for action. If the applicant requires more than he would receive by the method of computation described, he should also submit form R-315, stating the reasons for such request. An "industrial consumer" to whom a certificate is issued for "industrial consumption" of rationed fats and oils may use it only to acquire the foods for which application was made, and may use those foods only for the purpose for which the application was granted.

For several months the Office of Price Administration and medical authorities have been studying the hospital problem with a view to developing a uniform procedure covering the granting of supplemental allotments for hospitals. Solution of the problem is believed near. In the meantime a provision in the regulations (Section 11.6 of general Ration Order 5) should enable hospitals to obtain the necessary supplemental allotments so that patients need not suffer from dietary deficiency. This provision gives local boards authority to grant such allotments to meet the dietary requirements of patients living in and receiving care in hospitals, whether or not such patients are on special diets. In determining the amount of the supplemental allotment of processed foods and the commodities covered by Ration Order 16, the local board will take into consideration the availability of fresh fruits and vegetables, unrationed substitutes, such as poultry and fresh fish, and the physical facilities of hospitals to process and store such foods.

Military News

Lieutenant E. J. Dierolf, of Gary, is now serving at Camp Gordon, Georgia.

Captain H. L. Joseph, of Ligonier, has been in North Africa with the air force since November 8, 1942.

The present address of Major Paul Hart, formerly of Evansville, is Repl. Depot, DTC Indio Br., A.P.O. 441, c/o Postmaster, Los Angeles, California.

It has been announced that Captain Fred N. Daugherty, of Crawfordsville, and Captain Theodore A. Dykhuizen, of Frankfort, have arrived safely in North Africa.

Former Linton physician, Dr. Edwin Bailey, has been promoted to the rank of captain. He is now stationed at Camp Hensley, Texas, and is chief of the surgical service at the station hospital.

Captain G. L. Derhammer, of Brookston, is now serving somewhere overseas. His new address is A.P.O. 1216, c/o Postmaster, New York, New York. He has served at Camp Shelby, Mississippi, and Camp Grant, Illinois.

Captain Charles J. Aucreman, formerly of Montpelier, is now with the Base Dispensary, A.P.O. 951, c/o Postmaster, San Francisco, California. He is at an airfield and is the assistant to the base flight surgeon.

A bulletin received from the Madison County Medical Society reports that Captain Eugene William Austin, of Anderson, who has been serving in New Guinea, is now back in Australia. He had seen Lieutenant James Lamey, also of Anderson, in the New Guinea area. Lieutenant Lloyd E. Rosenbaum, another Anderson physician, seems to have been introduced to North Africa.

Lieutenant Richard Yocum was married June twenty-fourth to Miss Louise Diekerhouf, a nurse in the Marine Hospital at San Francisco, California. They are now located at Avalon, Catalina Island, California. Lieutenant Yocum's brother, Captain William Yocum, is located at Camp Blanding, Florida. Drs. Yocum are the twin sons of Dr. Boaz Yocum, of Coal City.

Information has reached us to the effect that Captain L. M. McNaughton, formerly of Petersburg, is serving in Iran.

Major Herbert L. Sedam, of Indianapolis, is now serving overseas. His address is A. P. O. 700, c/o Postmaster, New York, New York.

Captain James R. McLaughlin and Major William E. Barnett, of Logansport, are both stationed "Somewhere in Australia."

Captain Maurice Rothberg, formerly of Fort Wayne, is now serving at St. Johns, Newfoundland. He can be reached through APO No. 801, c/o Postmaster, St. Johns, Newfoundland.

Announcement has been made of the promotion of Dr. Edward A. Pekarek, of Hammond, to the rank of captain. Captain Pekarek is now stationed at Camp Scott, Fort Wayne, Indiana, where he is the camp surgeon.

Dr. Lloyd Rosenbaum, former Anderson physician, has been promoted from the rank of first lieutenant to that of captain. He is now stationed somewhere in North Africa.

Former Evansville physician, Lieutenant Commander Pierce MacKenzie, was recently on leave to recuperate his health following service on Guadalcanal. He had made first-hand observation of many interesting happenings in the South Pacific theater of war.

Colonel James W. Duckworth, a graduate of the Indiana University School of Medicine, and a native of Martinsville, who was placed in charge of the Army hospital at Bataan, Field Hospital No. 1, is a prisoner of the Japanese since Bataan fell. His wife, Mrs. Verna Prather Duckworth, is at present residing at 2066 North Delaware Street, Indianapolis.

Major Norman R. Booher, former Indianapolis physician, has been relieved of his position as commanding officer at the Fort Benjamin Harrison Station Hospital, his successor being Captain James E. McCormick, who had served as executive officer of the station hospital. Major Booher is taking a course at the command and general staff school at Fort Leavenworth, Kansas. Captain William S. Garner, also of Indianapolis, replaced Captain McCormick as executive officer.

Former Indianapolis physician, Captain Wendell C. Kelly, is now serving with a general hospital at Camp Carson, Colorado.

Lieutenant Colonel Orval J. Miller, of Fort Wayne, has been transferred from Spartanburg, South Carolina, to the New Orleans Staging Area, New Orleans, Louisiana.

Dr. John D. Winebrenner, formerly of Columbus, was recently promoted from the rank of first lieutenant to a captain. He is stationed at Camp Atterbury.

Captain Meyer W. Kobrin, of Gary, is now stationed at Camp Washington, Gloucester, Rhode Island. He was transferred from Fort Devens, Massachusetts.

Former Columbus physician, Dr. B. K. Zaring, has been promoted from the rank of captain to major. Major Zaring has been stationed at Camp Carson, Colorado, but is now on maneuvers.

Captain Bruce Weldy, of Hartford City, has been ordered to foreign duty. His address is O-468926, A.P.O. 3934, c/o Postmaster, New York, New York.

Dr. Maurice Gross, Ladoga physician until entering the Navy in 1941, has been promoted to the rank of lieutenant commander. Lieutenant Commander Gross was on duty at Midway Island at the time of the Battle of Midway.

Former New Castle physician, Dr. Robert A. Smith, has been promoted from the rank of major to lieutenant colonel. He is chief of the Eye, Ear, Nose and Throat Division of the Fitzsimmons General Hospital at Denver, Colorado.

Former Middletown physician, Lieutenant Commander Joseph Stamper, is in Hawaii. He is in charge of an examining room, making examinations for enlistments, appointments, and promotions to officer status. He is also in charge of the immunizations and is sick officers' physician in the Navy Yard. Between times, however, he manages to spend some time on the beach.

Captain John W. Little, Jr., former Indianapolis physician, entered the armed forces at Fort Knox, Kentucky, on May 21, 1942, as a first lieutenant. In February, 1943, he was promoted to a captain. In June, 1943, he graduated from the Medical Field Service at Carlisle Barracks, Pennsylvania, and is now commanding officer of Company D, of a Medical Regiment at Nashville, Tennessee.

According to letters received by Major Benjamin F. Pence's family, of Columbia City, he is now living in a pup tent on a stony island of North Africa.

Dr. Donald H. Rudser, formerly of Whiting, has been promoted to the rank of captain in the United States Army Medical Corps. He is stationed at Fort Dix, New Jersey.

Lieutenant W. J. Stangle, of Mooresville, who was formerly at La Honda, California, is now serving overseas. His address is M.C., U.S.N.R., U. S. S. Dobbin, care of Fleet Postmaster, San Francisco, California.

Captain Max M. Gitlin, formerly of Bluffton, is now on duty at the Brooke General Hospital at Fort Sam Houston, Texas. He reports that he is beginning to feel like a regular soldier, as it will soon be a year since he entered the armed forces. His brother, Captain William A. Gitlin, also of Bluffton, is now assigned to the station hospital at Camp Breckenridge, Kentucky.

Captain Robert B. Miller, formerly of Argos, recently completed a special one-month training course at the Medical Field Service School, at Carlisle Barracks, Pennsylvania. He is now a medical inspector, whose duties are to supervise sanitation and other medical preventive measures in Army camps and to make recommendations for the correction of any unsanitary conditions.

The Delaware-Blackford County Medical Society has supplied us with another comprehensive newsletter; many of the letters having been received from members of this society who are now serving in the armed forces. It is very interesting reading and we would like to be able to quote, but in order to cover more territory we can only use an occasional abstract. The two first letters published therein were received from North Africa. Major William Deutsch writes that North Africa is really beautiful and that the oranges there are the largest and sweetest that he has ever tasted; says the champagne is very good, too, but that he still prefers the Scotch and soda at the Roberts Hotel. Lieutenant Nihil K. Venis, who is also in Africa, suggests that other fellows coming overseas bring a good sleeping bag and rubber air mattress, also a small portable battery and electric radio, and a camera with plenty of film.

We quote from a letter written by him. "Africa is not a bad place at all. Rather barren in places, but they do a lot of irrigating. Grow nearly everything we do at home. Also have oranges, lemons and olives." He says that one of the most demoralizing things that can happen to a man is to rush to mail call and not get a letter.

Lieutenant D. J. Steele, formerly of Greencastle, is now serving at Gunter Field, Montgomery, Alabama.

Dr. John C. Warren, formerly of Bicknell, has been promoted to the rank of captain. He is serving somewhere in the South Pacific.

We have been informed that Lieutenant Ray Tharp, of Indianapolis, is serving somewhere in the Southwest Pacific. He reported having seen four Indianapolis physicians in that area—"Bob Walker, Byron Rust and L. Need are here." "Where?" "Here." "God bless 'em!" Lieutenant Tharp can be reached through Navy 8040, Fleet Post Office, San Francisco, California.

Major William J. Fagaly, of Lawrenceburg, is now stationed in North Africa. In various letters to his wife and children he has given some fascinating accounts of his experiences overseas; has written of the customs of the people and given a description of the country. Excerpts from his letters, published in the *Lawreneeburg Register* of June third, are most interesting, and to illustrate the contrast between the better class of French and the native Arab villages, we quote as follows:

"The cities in this country are the most beautiful I've ever seen, and the architecture is very modern, to the extreme, and very beautiful. There are corner windows, rounded balconies, serpentine balconies of iron, and circular non-supported cement stairs (these are especially prevalent here and are masterpieces). These houses are mostly made of white stucco with grilled doors and windows. Arab labor is cheap, about thirty-five cents per day, so these beautiful effects are possible at a comparatively low cost. Every house is surrounded by beautiful formal gardens, with palms, flowering trees and flowers of every kind, and surrounded by a wall covered with flowering vines.

"Native Arab villages are of thatched construction, usually built cone-shaped, each surrounded by a small thatched fence of reeds. Inside they resemble a low-grade pigpen. Natives are dressed very crudely in dirty, flowing rags, which they apparently never change or take off. At night we have to be careful or they will stick a dirk (long native knife) in us; they are very handy with them."

He also told of having seen a caravan of heavily laden camels come in from the country, with the Arab drivers riding tiny burros; had also seen camels used for plowing with crude wooden plows. One afternoon a shiek invited him to sit at his table and drink wine; said they had a very interesting conversation. He also stated, "It is interesting to sit down at one of the sidewalk tables and watch the whole world go by—all races and colors, dressed in every imaginable kind of dress and costume, and jabbering in a thousand tongues."

Captain Floyd Rogers, of Bloomington, is stationed somewhere in the Solomon Islands.

Captain Russell E. Havens, of Cicero, is now stationed at the Savanna Ordnance Depot, Proving Grounds, Savanna, Illinois.

We quote from a letter written by Dr. J. M. McIntyre, formerly of Indianapolis, who is now serving overseas.

"Yesterday we were given permission to tell of our travels of the past few months; so I hope this letter will be of more interest than the preceding ones.

"On November 1, 1942, we boarded a steamship and sailed out of the New York harbor the following morning at about 4:00 o'clock. When we were forty-eight hours at sea we were given maps of Africa and told that we would land at Casablanca, where we landed after an uneventful trip on November seventeenth. We stayed for about a week in the Italian consul and school, then moved on to another bivouac area for a while. On December ninth we moved up to Rabat and opened a hospital. We were situated in the grounds of 'The Champe Course,' which is the fanciest race track in Morocco. It is a combined race and steeplechase track. Large white flamingos or egrets used to nest in the infield. It was in this location that I was doing proctology.

"On April third we moved by truck to Tunisia, the doctors doing about one-half the driving, for we had not enough drivers for our string of trucks. It was on this trip, just west of Constantine, that I bumped into Roy Geider. In one bivouac area we were together for about three days, so we got to see each other a number of times.

"We crossed the Algerian-Tunisian border on April fifteenth, to be the first American evacuation hospital in Tunisia. We set up immediately just east of Tebarba and received casuals from the Mateur and Sedjanain Sectors, and during the latter days of the battle we received casuals from Tunis and Bizerte. Under these conditions we did no proctology, so I gave anesthetics and did some traumatic surgery—even amputated a hand and some fingers. After the fall of Tunis I visited the city one day. The docks were the only damage I saw, but Bizerte was practically leveled with bombs. We have not been operating lately, so I read in the morning and go swimming in the sea in the afternoon. Since leaving Rabat I have been doing my own laundry.

"Most of our patients during the battle were French or Arabic, with a small number of Germans, English and Americans. It was very difficult to keep the Arabs in bed. They would get dressed and ask to go back to the front the day after the operation. Had quite a few cases of gunshot wounds of the buttocks in which the missile had penetrated the peritoneum."

WHAT WENT ON DURING WORLD WAR I

(Items from THE JOURNAL of August, 1918.)

The scientific section carried three articles: "Occupational Neuroses," by C. E. Cottingham, Indianapolis; "Report and Discussion of a Case Simulating Brain Abcess of Upper Motor Zone, Occurring as a Sequel to Pneumonia," by G. W. McCaskey, Fort Wayne; and "Ocular Diseases Due to Foci of Infection Adjacent to or Remote from Eye," by Samuel Shoemaker, of Bluffton.

* * *

The editorial section comprised, in the main, a series of comments upon the enlistment of medical men for war services. Indiana still remained low in the list of states in this regard, and every effort was being made to improve our position. Editor Bulson, writing under the caption, "Plain Facts," handled the matter without gloves, stating that an army of more than two million United States men were in France, and that they needed medical protection. Every able-bodied Indiana physician under the age of forty-five was called upon to enlist immediately. Governor Goodrich had advised the editor that all such men *must* enlist, willy-nilly.

Another editorial, "Mobilization of the Medical Profession," stated that announcement had been received to the effect that official Washington was preparing to assume control of the entire medical profession of the country, taking such physicians as were needed for the armed forces and distributing the balance as needs developed throughout the country. (How like present-day suggestions!)

* * *

A third editorial, "Doctors, Attention!" explained the questionnaire every medical man in the country had received, and asked that it be given immediate attention. Dr. Albert E. Sterne, chairman of the state committee, was responsible for this editorial. It was at this time that a series of six or seven meetings were held in Indianapolis, by the Medical Section of the Indiana State Council of Defense, these meetings held in the University Club on consecutive Sundays. (As a member of that Council, we well recall the discussions of the problem of medical enlistments in Indiana.)

Of some 140,000 physicians in the country, it was estimated that only about 95,000 of these were engaged in active practice, and that about 23,000 were members of the Medical Reserve Corps.

* * *

Plans had been completed for the annual convention of the Indiana State Medical Association, to be held in Indianapolis on September 25-27. The meeting was to have a distinct war flavor.

* * *

Some one hundred or more Indiana physicians are mentioned as having been commissioned, ordered here and there, et cetera.

The editor noted that there had been a change in the attitude of the younger medical men relative to enlistment, there having been a marked improvement in this regard during the past two or three months.

* * *

A new law had been promulgated, requiring the reporting of all venereal diseases to the Indiana State Board of Health; the editor asked the support of all physicians in the matter.

* * *

The United States Department of Agriculture had announced the lowest death rate in swine in the last thirty years, 42.1 per 1,000. This meant that some four million more hogs were available for slaughter than in former years. (Today we learn that millions more hogs are to be ready for the Fall market than at any time in the history of the country.)

* * *

"Governor Goodrich has his fighting clothes on," said an editorial note. We vouch for this fact, since on many occasions in conversation with the Governor he expressed himself in no uncertain terms, chiefly on the subject of medical registrations.

* * *

The editor notes, "War conditions have brought about the appointment of various government dictators to control the sale and distribution of various necessaries for life and comfort." However, there was at that time no multiplicity of "alphabetical" committees and dictators, such as we have today.

* * *

Dr. Joseph D. Heitger had removed from Bedford to Louisville, Kentucky.

* * *

Dr. Charles N. Combs, secretary of the Indiana State Medical Association, had been promoted to the rank of captain and was stationed at Fort Benjamin Harrison.

* * *

Dr. Charles B. Kern, of Lafayette, president of the Indiana State Board of Health, had been rejected for army service because of a hernia. He had undergone an operation for this condition, was recovering, and planned to again appear for a service examination.

* * *

The Federal Internal Revenue collections for the fiscal year ending June thirtieth had reached the total of $3,672,000,000.00. Some four thousand employes were engaged in this department, the total cost of collection being some twelve million dollars.

Deaths

Henry E. Laymon, M.D., of Warren, died June nineteenth, at the age of seventy-five. He graduated from the Medical College of Indiana, Indianapolis, in 1897.

* * *

Henley H. Hubbard, M.D., of Boswell, died July fourth, at the age of fifty-seven. He was a graduate of the Indiana University School of Medicine, Indianapolis, in 1911. Doctor Hubbard served as a major with the A.E.F. during World War I. He was a member of the Benton County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Calvin L. Rowland, M.D., of Westpoint, died July eighth, at the age of seventy-one. He graduated from the Hospital College of Medicine, Louisville, in 1900. Doctor Rowland served as a captain in the Medical Corps during World War I. He was a member of the Tippecanoe County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Martin E. Klingler, M.D., of Garrett, died at Ann Arbor, Michigan, on June nineteenth. He was sixty-eight years of age. He graduated from the Fort Wayne College of Medicine in 1904. Doctor Klingler was especially interested in surgery. He was a member of the DeKalb County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

Bartholomew Fitzpatrick, M.D., of Columbus, died on June fifteenth. He was eighty-four years of age. He graduated from the Medical College of Ohio, Cincinnati, in 1882.

* * *

Guido B. Hammond, M.D., of English, died June seventh, at the age of sixty-seven. He was a graduate of the Kentucky School of Medicine, Louisville, in 1903. Dr. Hammond was serving as secretary of the Crawford County Medical Society at the time of his death, and was a member of the Indiana State Medical Association and the American Medical Association.

* * *

William W. Tindall, M.D., of Shelbyville, died at his home on June eighteenth. He was sixty-six years of age. He graduated from the Eclectic Medical College, Cincinnati, in 1903. He was a past president of the Shelby County Medical Society, was a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Isham E. Cottingham, M.D., of Evansville, died on July ninth. He was eighty-five year of age. He graduated from the University of Louisville School of Medicine, Louisville, in 1879 and from the Bellevue Hospital Medical College, New York City, in 1881. He was a member of the Vanderburgh County Medical Society, an honorary member of the Indiana State Medical Association, and a member of the American Medical Association.

News Notes

Dr. E. B. Jewell, of Logansport, was chosen president-elect of the Indiana Roentgen Society at its annual meeting in Indianapolis.

Announcement has been made of the marriage of Dr. William H. Johnston, of Alexandria, to Miss Elizabeth Bulleit, of Corydon. The wedding took place at the Corydon Methodist Church on June tenth. The couple is residing in Alexandria.

Dr. James F. Clancy has re-opened his office at Hammond. He was discharged from the Army Medical Corps because of the need of physicians and surgeons in Hammond, and also because of a physical condition which barred him from active duty.

Dr. L. W. Elsner, of Seymour, was named president of the medical and surgical staff of the Jackson County Schneck Memorial Hospital at a meeting held in Seymour on June eighteenth. Dr. D. J. Cummings, of Brownstown, was elected vice-president and Dr. C. E. Gillespie, of Seymour, was elected secretary-treasurer.

Dr. Robert Craig, of Gary, and Miss Mildred McFarren, of Indianapolis, were married at Indianapolis on July tenth. Dr. Craig has just finished his internship at the Indianapolis City Hospital where he is serving as a resident while awaiting a call to the armed forces, having been commissioned a lieutenant in the Army Medical Corps.

Dr. and Mrs. S. W. Hervey, of Fortville, celebrated their fiftieth wedding anniversary on June thirteenth. Dr. Hervey has been in practice at Fortville more than half a century.

Dr. O. C. Wicks, of Gary, and Mrs. Adele Schroter Martin, of Chicago, were married in Buffalo, New York, on June twenty-fourth. They will reside in Gary, where Dr. Wicks is engaged in the practice of medicine.

Dr. Jean Todd Stoops, of Wabash, and Miss Margaret E. Mobberley, of Cincinnati, were married at the Delhi Methodist Church in Cincinnati on June twenty-sixth. The couple will reside in Indianapolis where Dr. Stoops is completing his internship at the Indiana University Medical Center.

MEDICAL OFFICERS NEEDED FOR FEDERAL CIVILIAN WAR SERVICE

The critical shortage of physicians to engage in vital war work in the civilian branches of the government continues. The great need for these men resulted in the announcing of a liberalized civil service examination for medical officers in 1941. The Civil Service Commission has just revised and re-announced this examination.

The twenty optional branches under which doctors may apply range from general practice to aviation medicine. Those appointed will perform professional duties as doctors of medicine in active practice in hospitals, in dispensaries, or in the field or rural areas; or in bureaus of the government, such as the Veteran's Administration, Civil Aeronautics Administration, Public Health Service, and Food and Drug Administration. Doctors will also be used in industrial establishments under direction of the War Department.

Applicants for all grades must have received the degree of M.D. from an accredited medical school. Applicants for the senior medical officer grade ($5,228 a year) must have had at least five years of appropriate medical experience; for the medical officer grade ($4,428), three years of experience in addition to a required interneship; and for the associate medical officer grade ($3,828) one year of internship. The salaries quoted include overtime pay.

There are no written tests and no age limits. Persons now using their highest skills in war work should not apply for these positions. Appointments in Federal positions are made in accordance with War Manpower policies and employment stabilization plans. Before a definite offer of appointment is made, eligibles are cleared through the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, of the War Manpower Commission.

Further information and application forms may be obtained at first- and second-class post offices, Civil Service Regional Offices, and the Commission in Washington, D.C.

MEETING OF THE ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES

The Association of Military Surgeons of the United States will hold its fifty-first annual convention in Philadelphia, at the Bellevue-Stratford Hotel, October 21-23, inclusive, according to an announcement by association officers.

The three-day convention will assemble doctors from all the current war fronts where United States forces are fighting, and from the great base hospitals where rehabilitation of the wounded is in progress. They will bring with them information on the latest techniques of wartime medicine and surgery. Numerous forum lectures, practical demonstrations, moving pictures and teaching panels are planned to present the wealth of data to the convention.

Honorary chairman of the convention this year is Rear Admiral Ross T. McIntire, surgeon general of the Navy. The vice-chairmen are Brigadier General George F. Lull, U.S.A., of Washington, D.C., and Commander E. L. Bortz, Medical Corps, U.S.N.R., of Philadelphia. Members of the executive committee for the convention include Captain R. H. Laning, Medical Corps, U.S.N.; Dr. Stanley P. Reimann, Dr. Gilson Colby Engle, Commander J. L. Tinney, U.S.N.R., and Dr. A. Newton Richards.

Inquiries should be addressed to Captain J. A. Biello (MC), U.S.N., at the Navy Yard, Philadelphia, Pennsylvania.

MEDICAL LITERATURE WANTED IN RUSSIA

Russian War Relief, which is sending American medical textbooks to Russian schools training surgeons and doctors for the front lines, has issued a new appeal for contributions of medical literature.

The appeal was in response to requests from the Russian Society for Cultural Relations with Foreign Countries. Russian officials point out that many Soviet schools of medicine were evacuated thousands of miles to Central Asia and the Urals from Kharkov, Kiev, and other occupied cities. In most cases libraries had to be left behind. The Kiev Medical Institute, cited as one example, was moved to Chelyabinsk in the Urals, 1,300 miles away. The Kharkov Medical Institute, whose faculty and student body were evacuated as the Reichswehr battered at the city's gates, is now at Chkalov, on the Ural River.

Many of the books sent from America to these and other medical schools were contributed by doctors and medical associations from all parts of the United States. They range in subject from child development to neuroses in war.

Inquiries or gifts of medical books should be sent to Russian War Relief, Inc., 11 East Thirty-fifth Street, New York 16, N. Y. A complete list of the books needed in the Soviet Union will be sent upon request. Donors may attach to their contributed books notes which will be forwarded to Russian medical libraries receiving the books.

AWARD OFFERED BY NATIONAL SOCIETY FOR THE PREVENTION OF BLINDNESS

The National Society for the Prevention of Blindness announces that a prize of $250 will be awarded for the most original paper adding to the present knowledge about medical treatment of non-congestive glaucoma. Papers should be in the office of the society, 1790 Broadway, New York City, by September, 1944. (This prize is being offered in addition to one that was previously announced for the most valuable original paper concerning the diagnosis of early glaucoma.)

Papers may be presented by any practicing ophthalmologist of the Western Hemisphere.

INDIANA UNIVERSITY NEWS NOTES

With the number of births in Indiana steadily increasing, expectant mothers have been given assurance by the Indiana University Medical Center that the likelihood of their babies being born with a deformity is very slight. Statistics gathered by the medical center with the aid of the State Board of Health show that on the basis of information available the incidence of harelip or cleft palate is about one in two thousand births; congenital stricture of the outlet of the stomach occurs once in about one thousand births; and the more severe malformations are very infrequent, extrophy of the bladder being reported only once in fifty thousand births.

These averages, based on the statistics from several states, have been proportioned to Indiana by Dr. Thurman B. Rice, who has been loaned by the University Medical Center to direct the State Board of Health, and Dr. Robert E. Jewett, acting director of the board's Bureau of Maternal and Child-Health. These would indicate that congenital stricture of the outlet of the stomach might be expected in two to three hundred newborn babies a year in Indiana, and that only thirty to forty babies with harelip or cleft palate may be expected to be born each year in the state.

Drs. Rice and Jewett have advised Dr. W. D. Gatch, dean of the Indiana University School of Medicine, that, based on their findings in states reporting congenital and other deformities, there are crippling conditions being suffered by Indiana children eligible for treatment at the James Whitcomb Riley Hospital at the Indiana University Medical Center, as follows:

Arthritis, 60; scars from wounds or burns, 40; congenital dislocation of the hip, 70; malunited and ununited fractures, 25; osteomyelitis, 44; tuberculosis of the bone, 80; infantile paralysis deformities, 400; curvature of the spine, 250; spina bifida, 54; clubfoot, 174, and congenital torticollis, 90.

Experiences of the United States Army Medical Corps, in the setting up of bases in central Africa, indicate that "many generations must pass before the 'Dark Continent' becomes a safe habitation for the white man" in the opinion of Colonel Don G. Hilldrup, native Hoosier and Indiana University School of Medicine graduate who headed the first Army medical staff to penetrate interior Africa.

Colonel Hilldrup, now chief of the medical branch of the Sixth Service Command, described the sanitation and medical problems encountered by the Army in central Africa for students of the Indiana University Schools of Medicine and Dentistry and physicians of the Indianapolis area in presenting the annual Nu Sigma Nu medical fraternity lecture at the Indiana University Medical Center.

Many unusual diseases and a lack of knowledge of the first principles of sanitation were found by the Army medical men in setting up the bases by which American planes are ferried across Africa to the Middle East and the Orient, Colonel Hilldrup asserted.

"One hundred per cent of the population of central Africa is afflicted with malaria, but through sanitation and the compulsory use of quinine only 8 per cent of the American troops first entering the area contracted the disease," said the former Hoosier, who was one of the first Americans to enter Dakar. "On the other hand, appendicitis is unknown among the natives, showing that it is a disease of civilization."

Pointing out that among American troops in the Tunisian campaign only 2 per cent of the battle-wounded died, whereas 15 per cent of the American wounded in the first World War succumbed to their wounds. Colonel Hilldrup predicted, "The American physician returning from this war will have a broader experience and vision than the doctor coming home after 1917-1918."

Complying with Army and Navy requirements, the Indiana University School of Medicine, through its dean, Dr. W. D. Gatch, has announced the selection of 154 pre-medical students for entrance to the school in May, 1944. The selection as made by a committee of fourteen faculty members and practicing physicians, headed by Dr. C. H. McCaskey of Indianapolis, were made subject to maintenance by the students of satisfactory grades and conduct. On account of this proviso attached to the selection, the total of 154 is 16 per cent above the facility-limited quota of the Indiana University school.

The students chosen are enrolled for pre-medical study in Indiana University and twenty-three other colleges and universities. Included in the total are nine women. Men selected for the class and subject to military service will be placed on an inactive duty status until they enter medical school when, according to present Army and Navy regulations, they will be called to active duty and receive

quarters, subsistence, fees, books and the Army private's or Navy midshipmen's pay of fifty dollars a month while pursuing their professional training.

The selections as announced by Dean Gatch follow:

Dorothy Alexander, David A. Baltz, Norman J. Beatty, Ralph L. Boatman, Harold E. Bryant, Robert Buckler, Russell A. Eckert, Davis W. Ellis, Harold R. Freeman, David C. Gastineau, Oscar Green, Charles P. Hamer, Tom C. Hanika, Wilbur P. Hicks, Ronald H. Hull, August M. Kasper, Jr., Herald E. Kasting, A'Lelia Josephine Kirk, Theodore LeMaster, Mary Elizabeth Miller, Michael O. Monar, Donald P. Morgan, John E. Owen, Robert L. Parr, Frank M. Rabb, Robert L. Rudesill, Abe Schuchman, Joseph B. Seagle, William E. Segar, John R. Stanley, Thomas A. Stump, Walter B. Tinsley, Jr., Paul E. Weathers, Nicholas E. Tonhazy, and Malcolm L. Wrege—all of Indianapolis; Frederick A. Clark, Jr., Albany; Earl Fisher, Jr., John W. Gaddis and Warren A. Heinly, Anderson; Robert W. Sappenfield, Bedford; Howard M. Luginbill, Berne; Vincent J. DePaulo, Phillip E. Pennington, Eugene S. Turrell, Bloomington; Robert W. Schimmelpfennig, Boonville; Carl J. Brunoehler, Brazil; Homer R. Dorrell, Camby; Robert D. Arnold, Carlisle; John W. Reichle, Jr., Connersville; William S. Freeman, Crawfordsville; Richard P. Glover and Virgil A. Place, Crown Point; Irving L. Colvin, Culver; Max E. Johnson, Decatur; Leonard M. Zolkos, East Chicago; James C. Miller and Edward Pruitt, Edinburg; Robert M. Abel, John H. Houseworth, Donald G. Ritter and Richard B. Wenger, Elkhart; Elisabeth Ploughe, Elwood; William D. Allen, Charles E. Buck, John H. Grant, Jr., David A. Hamburg, Melba Rose McDonald, John W. Mason, Robert H. Oswald, Jack H. Purcell, and William D. Ritchie, Evansville; Arthur F. Aiken, Diedrich H. Brandt III, Robert W. Moses, Edwin E. Pontius, Fort Wayne; Jake Ruch, Frankfort; James R. Gish, Galveston; Leo R. Radigan, and Myrtle Schneller, Gary; Ruth Mendenhall and Phillip Sthair, Goshen; Paul W. Holtzman, Gosport; Elbert L. Tetrick, Greensburg; James R. Turecek, Gwynneville; Henry C. Cleveland, Jr., Joseph A. Griffin and Robert Seglin, Hammond; Quentin D. Kenoyer, Highland; George C. Weinland, Hope; George T. Lukemeyer, Jasper; William H. Pollard III, Kendallville; Dan B. Kahle, Robert L. Mather, Lafayette; Frederick L. Kautzman, Lawrence; John L. Holmes, Raymond K. Kincaid, and John R. Porter, Lebanon; John C. Jones, Logansport; Harry M. Sanders, McCordsville; Gale E. Dryden, Madison; Robert D. Cunningham, Marion; William L. Harlan, Michigan City; Arthur Karler and Gena Rose Pahucki, Mishawaka; Richard E. Hipskind, Ray Fitch, Donald C. Mettler, John L. Shively, William H. Smith, Muncie; John T. Ferguson, Monon; Keith D. Stouder, Nappanee; John M. Summers, Newburgh; James R. White, New Castle; Jon Henry Rouch, Noblesville; Walter L. Owens, Norman; Marion D. Kinzie, Kenneth Leasure, Arnold Souder, Jr., North Manchester; Donald N. Cain and Jack M. Walker, Plainfield; James D. Kubley and James S. Robertson, Plymouth; James Y. Wood, Princeton; James G. Kidd, Jr., Roann; Ernest F. Bundy, Salem; Kenneth R. DeVoe and Paul E. Schneck, Seymour; Robert J. Alber, Byron H. Armstrong, Rodger L. Buck, James S. Cole, Edward J. Molenda, Robert E. Murphy, Robert O. Peckinpaugh, Paul Pickett, Jr., and Justin C. Schubert, South Bend; Don G. Bock, Spencer; John J. Connelly, John O. Lawrence and William F. Phillips, Terre Haute; Charles C. Gullett and Charles R. Phipps, Union City; Theodore D. Bean, Valparaiso; Russell Shroyer, Vincennes; Gilbert B. Causey, Wadesville; Max R. Zelle, West Lafayette; Donald H. Kidd, Winamac; Warren E. Coggeshall, Winchester; Dorothee Lansing, Birmingham, Michigan; Charles F. Ford, Penn's Grove, New Jersey; Thomas K. Terrell, Buffalo, New York; Jerome A. Ennis, New York; Jefferson C. Woodbury, Akron, Ohio; and Herman L. Auerbach, Hazelton, Pennsylvania.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

June 27, 1943.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; J. T. Oliphant, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; E. M. Shanklin, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guest: R. E. Jewett, M.D., acting chief, Bureau of Maternal and Child-Health, Indiana State Board of Health.

The statements of receipts and expenditures for May for the association committees and THE JOURNAL were approved.

Membership Report

Number of members June 26, 1943	3,069*
Number of members June 26, 1942	3,189
Loss over last year	120
Number of members December 31, 1942	3,259

* This figure includes 110 honorary members, and 739 men in service who received membership gratis.

1943 Annual Session at Indianapolis, September 28, 29 and 30

Commercial Exhibit. Forty-seven spaces sold; two to be sold.

Scientific Exhibit. This is in the hands of Drs. Culbertson, Rupel and Kohlstaedt.

Scientific Program. The following speakers have accepted to date: Admiral Ross T. McIntire, surgeon general, United States Navy; Reed M. Nesbit, M.D., Ann Arbor, Michigan; Ernest P. McCullagh, M.D., Cleveland, Ohio.

Annual Banquet. Herman L. Kretschmer, M.D., president-elect of the American Medical Association, invited. The second speaker on the program is to be an entertainer.

This is to be made a Ninth Naval District medical meeting, in honor of Admiral McIntire. Admiral Downes, of Chicago, and Captain Dollard, head medical officer, Ninth Naval District, will be present. The executive secretary is to make arrangements for this meeting with the naval officers at Chicago, June 30.

Certificate of appreciation for Dr. Austin signed.

The committee selected the type of badge to be used and requested that bids be obtained from the various companies.

Letter received from National Association of Manufacturers, stating that a speaker from that organization would be available for the program of the state meeting, if desired. The committee expressed its appreciation of this offer but felt that due to the fact that this was a streamlined session it would be difficult to place anyone from that organization upon the program.

Legislative, Legal and Social Security Matters

National

A.M.A. Legislative Bulletin No. 27 sent to the members of the Executive Committee.

Report on battle against lowering standards in medical services rendered under direction of the Children's Bureau made to the committee. Provision contained in bill now before Congress would permit sectarian healers to participate in obstetrical programs of the Children's Bureau. Letters of protest were sent to Indiana representatives and to chairmen of the subcommittees of the Senate and the House considering the amendment. This undesirable amendment was removed in the Senate committee. If Senate accepts committee recommendation, bill will then go to conference.

Editorial in June 26 issue of *The Journal of the American Medical Association* entitled, "Getting Medical Point of View Before Congress Is not Easy Task," brought to the attention of the committee.

Associated Press story, stating that Dr. James E. Paullin, president of the American Medical Association, is advocating the establishment of government-supported medical centers and the relocation of physicians to provide adequate care for every individual in the nation as a postwar goal of the American Medical Association, brought to the attention of the committee. According to the dispatch, a report of an interview appeared in the *Atlanta Journal* in which Dr. Paullin predicted "widespread indorsement of the association's 'socialized' medical care program." The committee instructed the secretary to write to the American Medical Association and find out if Dr. Paullin was speaking as an individual or as president of the American Medical Association, representing the viewpoint of that organization.

Local

Report upon the new hospital commitment statutes and the meetings held by the Welfare Board and the officials of the Indiana University Medical School in regard to the administration of the new statutes made by Dr. McCaskey. The committee approved Dr. McCaskey's suggestion that a conference be held soon with the executive committee of the judges' association, and that some methods be set up whereby a physician will be appointed on each county welfare board.

A.M.A. Annual Session, Chicago

Account of meeting to be carried in July JOURNAL of state association with an editorial concerning the establishment of a public relations bureau.

Indiana resolution in regard to Cooperative Advertising Bureau presented by Dr. E. M. Shanklin, editor of THE JOURNAL, and adopted at the meeting of the Cooperative Bureau.

In accordance with a request made in a letter from Dr. West, the Executive Committee nominated five men, two of whom are to be selected by the Board of Trustees of the American Medical Association, to serve as members of the Advisory Committee to the Cooperative Medical Advertising Bureau.

Editorial in June 19 issue of *The Journal of the American Medical Association* on the annual session discussed by the committee. The committee felt that the statement in the editorial which reads, "The House of Delegates voted by a large majority against the establishment of a Washington office," did not indicate the true sentiment of the House. The Executive Committee feels that the newly-created Council on Medical Service and Public Relations may, if it sees fit, establish a Washington office. As a matter of fact, the resolution presented by the Ohio State Medical Association, asking specifically that such a Washington office be established, was voted down after it was explained that the newly-elected Council could establish such an office if it saw fit to do so.

Organization Matters

Letter received from the family of Dr. Walter F. Carver thanking the committee for its telegram of sympathy and flowers sent at the time of Dr. Carver's death.

The government trial against Dr. William F. Koch, "cancer specialist," which took place recently in Detroit, resulted in a hung jury. No date has been set for retrial of the case, but according to W. B. Simmons, chief inspector of the Central District of the Food and Drug Administration, the case probably will be retried this fall.

War Medicine

A series of nine articles entitled, "Indiana Doctors and the War," is to start soon in *The Indianapolis News.*

Article in regard to food rationing by the Advisory Committee of the Indiana State Medical Association to the Office of Price Administration appeared in the June issue of THE JOURNAL. Editorial in regard to rationing will appear in the July issue of THE JOURNAL.

Letter from Dr. E. M. Shanklin concerning recognition of medical men not in service because they have been declared essential to community practice brought to the attention of the committee. The committee felt that as the Procurement and Assignment Service had considered the recognition of such physicians and on several occasions had definitely discarded the matter of awarding them certificates or badges, the state medical association should follow the lead of the Procurement and Assignment Service in this matter.

Care of Service Men's Wives and Children. Report on the care of service men's wives and children, as provided by Federal Act, will appear in the July issue of THE JOURNAL. This report, containing fee schedules for services rendered under this Act, will be made by the Advisory Committee of the Indiana State Medical Association to the Bureau of Maternal and Child-Health of the Indi-

ana State Board of Health, of which Dr. H. F. Nolting is chairman.

Dr. Robert E. Jewett, acting chief of the Bureau of Maternal and Child-Health of the Indiana State Board of Health, appeared before the Executive Committee and discussed the administration of this Act here in Indiana.

Letters from the Michigan State Medical Society, Wayne County (Michigan) Medical Society, and the West Virginia State Medical Society brought to the attention of the committee.

The House of Delegates of the American Medical Association adopted the following resolution in regard to this service:

"Report of Reference Committee on Legislation and Public Relations

"Dr. Thomas A. McGoldrick, chairman, presented the following report:

"1. Resolutions Expressing Approval of Federal Assistance to Wives and Children of Service Men as Outlined in Plan Under Consideration by Federal Children's Bureau, introduced by Dr. John H. Fitzgibbon, Oregon: Your reference committee recommends (a) that the action of the federal government in making funds available for maternity and infant care for the wives and infants of enlisted men be approved, and (b) that adoption be urged of a plan under which the federal government will provide for the wives of enlisted men a stated allotment for medical, hospital, maternity and infant care, similar to the allotments already provided for the maintenance of dependents, leaving the actual arrangements with respect to fees to be fixed by mutual agreement with the wife and the physician of her choice."

The Indiana nurses' rally will be attended by General David N. W. Grant, air surgeon. The Indiana State Medical Association will entertain General Grant and his staff at a dinner meeting Saturday evening, July 3.

Farm Security Administration

Report made upon the plan to take care of transient agricultural workers by Farm Security Administration. Dr. F. S. Crockett, of Indiana, is working with the FSA upon a plan to render medical service to these workers.

Letter from Charles Nelson, secretary of the Ohio State Medical Association, upon this plan brought to the attention of the committee. Copies of this letter are to be sent to each member of the committee.

State Board of Health

Article by Warren Draper, of the Surgeon General's Office, in regard to public health work during the national emergency brought to the attention of Dr. Weyerbacher. Dr. Weyerbacher will make a report upon this article at the next meeting of the committee.

Letter received from the attorney of the town of Chesterton in regard to quarantine regulations brought to the attention of the committee. Copy of this letter has been sent to the secretary of the State Board of Health and the councilor of the Tenth District in which Chesterton is located.

Group Hospitalization and Medical Service Plans

Article by Dan Tobin, head of the teamsters' union, warning against insurance benefits covering hospitalization and sickness carried by unions, brought to the attention of the committee. This article was turned over to the editor of THE JOURNAL for such comment in THE JOURNAL as he saw fit.

Medical Relief

Letter of June 6 from Dr. E. O. Asher, chairman of the Medical Relief Committee of the Indiana State Medical Association, discussing the problems faced by the Welfare Department in the care of old-age pensioners, the blind, and dependent children, brought to the attention of the committee. Dr. Oliphant commented upon this problem and told of the revised manual of the Welfare Department of June 17. Dr. Oliphant expressed himself as feeling that no technical committee composed of physicians would do the work requested of it by the Welfare Department, that is, pass upon the question as to whether or not any physician was making unnecessary visits, giving over-extensive treatment, etc. He stated that this new manual should be supplied to each medical society and a study be made of the manual so that each medical society will know exactly what it is expected to sign up for when agreements are made with the Welfare Board to take care of these welfare clients.

The Journal

Increase in printing costs discussed by the committee.

The committee approved continuing the $1.00 subscription rate to hospitals.

The committee approved the F. E. Young dilator advertisement.

Medical Defense

The committee discussed the possibility of group malpractice insurance for the physicians of Indiana and requested that the secretary write to all companies and ask if they would be interested in writing a standard $10,000 to $20,000 limit group malpractice policy for the physicians of the state.

Dr. Nafe reported in regard to the group malpractice policy carried by the Oklahoma State Medical Association with the London and Lancashire Indemnity Company of America. Information in regard to this was obtained from Dick Graham, secretary of the Oklahoma State Medical Association.

There being no further business, the meeting was adjourned.

(Continued on page xxi)

(Continued from page 424)

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

April 23, 1943.

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D., and T. A. Hendricks, executive secretary.

Series of newspaper articles prepared at the special request of Walter McCarty, managing editor of *The Indianapolis News*, for *The News*, entitled "Indiana Doctors and the War," follows:

"The War and Doctors"—introduction to series.

"Procurement and Assignment Service for Marion County."

"This Is War."

"Public Health During War Times."

"The Hospital and the Public During the War Emergency."

"Industrial Health Problems in War Time."

"Mental Health in War Time."

"Medical Profession Faces Big Job."

"Local Health Problems."

Concluding article by president of the Indiana State Medical Association.

Two or three of these articles are to appear each week in *The News*.

Request for speakers:

May 5, 1943—Board meeting, Woman's Auxiliary to the Indiana State Medical Association, Indianapolis. President of state association and chairman of Bureau of Publicity to cover meeting.

May 18, 1943—Joint meeting of Indiana State Dental Association and Indianapolis Medical Society, Indianapolis. Program arranged.

May 19, 1943—Fourth District Medical Society, Greensburg. Program arranged.

May 20, 1943—Ninth District Medical Society, Lafayette. Program arranged.

Letter received from the president of the Woman's Auxiliary, asking whether the auxiliary should have a business session at the state meeting in September. The Bureau was of the opinion that a business meeting of the Woman's Auxiliary during the annual session would be very much worthwhile. The chairman of the Bureau of Publicity is to discuss this matter in detail with the executive board of the Woman's Auxiliary at its May 5 meeting.

Pamphlets received from New York State Medical Society and other sources brought to the attention of the Bureau.

BUREAU OF PUBLICITY

May 14, 1943.

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D., and T. A. Hendricks, executive secretary.

Series of newspaper articles prepared for *The Indianapolis News* completed and delivered to *The News*.

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Report on medical meeting:

May 5, 1943—Board meeting, Woman's Auxiliary to the Indiana State Medical Association, Indianapolis. Talks by president and chairman of Bureau of Publicity of the Indiana State Medical Association.

Request for speaker:

May 28, 1943—Woman's Auxiliary to the Howard County Medical Society, Kokomo. Speaker obtained.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, June, 1943

DISEASES	*June 1943*	*May 1943*	*April 1943*	*June 1942*	*June 1941*
Tuberculosis, primary	14	25	18	2	0
Tuberculosis, active	235	328	222	111	138
Tuberculosis, arrested	15	72	11	9	0
Chickenpox	150	370	507	132	89
Measles	1133	2248	2103	305	1197
Scarlet Fever	131	302	345	96	131
Smallpox	5	7	5	6	1
Typhoid Fever	9	8	0	7	13
Whooping Cough	248	320	330	168	98
Diphtheria	13	23	16	9	25
Influenza	6	39	141	14	17
Pneumonia	25	70	48	25	37
Mumps	110	483	411	59	56
Poliomyelitis	1	1	2	0	0
Cerebrospinal Meningitis	23	34	39	1	1
Undulant Fever	6	8	8	2	2
Rubella	65	320	1347	19	73
Malaria	1	2	2	2	0
Tetanus	2	0	0	0	0
Rocky Mountain Spotted Fever	2	0	0	0	1
Pellegra	1	0	0	0	0
Erysipelas	1	0	0	0	0
Typhus Fever	1	0	0	0	0

Books

BOOKS RECEIVED

MEDICAL MALPRACTICE. By Louis J. Regan, M.D., LL.B., Member State Bar of California. 256 pages. Cloth. Price $5.00. The C. V. Mosby Company, St. Louis, 1943.

* * *

REHABILITATION OF THE WAR INJURED. A Symposium, edited by William Brown Doherty, M.D., and Dagobert D. Runes, Ph.D. 684 pages, with numerous illustrations. Cloth. Price $10.00. Philosophical Library, New York, 1943.

A SYNOPSIS OF CLINICAL SYPHILIS. By James Kirby Howles, M.D., Professor of Dermatology and Syphilology, and Director of the Department, Louisiana State University School of Medicine. 671 pages with 121 text illustrations and 2 color plates. Fabrikoid. Price $6.00. The C. V. Mosby Company, St. Louis, 1943.

* * *

UROLOGY IN GENERAL PRACTICE. By Nelse F. Ockerblad, M.D., Professor of Clinical Urology, University of Kansas School of Medicine, and Hjalmar E. Carlson, M.D., Instructor in Urology, University of Kansas School of Medicine. 383 pages, with 98 illustrations. Cloth. Price $4.00. The Year Book Publishers, Inc., Chicago, 1943.

* * *

METHODS OF TREATMENT. Eighth Edition. By Logan Clendening, M.D., Clinical Professor of Medicine, Medical Department of the University of Kansas, and Edward H. Hashinger, M.D., Clinical Professor of Medicine, Medical Department of the University of Kansas. 1033 pages with 138 illustrations. Cloth. Price $10.00. The C. V. Mosby Company, St. Louis, 1943.

BOOKS REVIEWED

TREATMENT OF THE PATIENT PAST FIFTY. By Ernst P. Boas, M.D., Associate Physician, Mount Sinai Hospital, New York City; Chairman, Committee on Chronic Illness, Welfare Council of New York City; Assistant Clinical Professor of Medicine, Columbia University. 324 pages. 19 illustrations. Cloth. Price $4.00. The Year Book Publishers, Inc., Chicago, 1941.

This is a very readable narrative of the physical status and disease of the patient past fifty, which has very little of the ordinary textbook style about it. It is full of sensible suggestions, not only as to treatment but toward a better understanding of our aging patient. There really are no diseases of senescence, but the patient in the later decades of life does react in a special manner to many diseases. The author endeavors to show this difference in reaction as well as the possible difference in treatment needed. The general practitioner will find this book of much help in understanding his elderly patients.

J. B. M.

THE CARE OF THE AGED. (Geriatrics) Fourth Edition. By Malford W. Thewlis, M.D., Attending Specialist, General Medicine, United States Public Health Hospitals, New York City. 589 pages with 50 illustrations. Cloth. Price, $7.00. The C. V. Mosby Company, St. Louis, 1942.

This edition has not been entirely rewritten, but considerable important new material has been added. Almost seven hundred changes have been made so as to bring about better understanding of the afflictions of the elderly patient. Paragraphs on treatment are checked and material added or deleted as experience has shown best. Graph charts have been corrected to the latest vital statistic reports. The discussion of arterial hypertension has been materially changed and the treatment of pneumonia brought up to the present. The section on fractures has been largely rewritten. A page on blood transfusions has been added, as has been a chapter on anesthesia. One of the interesting things about this edition is the use of better terminology and the elimination of controversial treatment.

J. B. M.

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TABLE OF CONTENTS

Original Articles

Ninth Naval District Medical Services. Captain H. L. Dollard, Great Lakes, Illinois 425
History of Organized Anesthesia in Indiana. Floyd T. Romberger, M.D., Lafayette 428
The Surgical Management of Perforative Appendicitis. Lieutenant Colonel William C. Reed, M.C.; Lieutenant Colonel Buford Word, M.C.; and Captain Clayton E. Brock, M.C., Camp Shelby, Mississippi 437
The Determination of the Prognosis in Glomerulonephritis by Clinical Methods. Paul C. Dietz, M.D., Muncie 441
Head Injuries Followed by Post-Concussional Syndrome. Lowell W. Painter, M.D., Winchester 445
Absorption of Sulfanilamide from Burned Surfaces. Mell B. Welborn, M.D., Evansville 447

The Indianapolis Session

Photographs of Officers and Speakers 450, 459, and 463
Program 462
Announcements 465
Instructional Courses 466
Committees on Convention Arrangements 467
Woman's Auxiliary 468
Official Call to the House of Delegates 470
Reports of Officers and Committees 471
- Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health 491
- Anti-Tuberculosis Committee 496
- Auditing Committee 492
- Bureau of Publicity 485
- Cancer Control Committee 493
- Civic and Industrial Relations 487
- Civilian Defense 499
- Conservation of Vision 496
- Council, Chairman of 474
- Councilor Districts 476
- Credentials 471
- Crippled Children, Liaison Committee of the Division for 492
- Cultists and Irregular Practitioners 495
- Executive Committee 478
- Executive Secretary 471
- Hard of Hearing 497
- High School Athletics 489
- Historian 492
- Industrial Health 494
- Insurance—Director of Research on Sickness Insurance 491
- Insurance—Permanent Study Committee on Health Insurance 488
- Inter-Professional Health Council 496
- Journal Editor 487
- Medical Education and Hospitals 487
- Medical Relief Committee 499
- Mental Health 490
- Necrology 489
- OPA Medical Advisory Committee 500
- Physical Therapy 498
- Public Policy and Legislation 484
- Secretaries' Conference 488
- State Fair 490
- Traffic Accidents, Prevention of 490
- Treasurer 472
- Venereal Disease 494
- War Participation 497

House of Delegates, Members of 501
Reference Committees 502
Presidents of Indiana State Medical Association 503
Data Regarding Previous Annual Sessions 503
Exhibitors 504

Editorials

Hi, Sailor! 509
Arthur T. McCormack 509
Wagner-Murray-Dingell Bill 510
The Plain Facts in the Case 510
Postwar Battles 511
Editorial Notes 513

Special Articles

President's Page 516
Pioneer Physicians and Surgeons of Montgomery County, Indiana. George T. Williams, M.D., Crawfordsville 517
"The Bestest the Cheapest." Robert Hoffman, M.D., South Bend 520
Under the Capitol Dome 521
Medicine Today 522
Voice of Medicine 523

Miscellaneous

Deaths 528
Military News 524
What Went on During World War I 527
News Notes 529
Indiana University News Notes 531
Societies and Institutions:
- Local Societies—Meetings 532
- Woman's Auxiliary 533

Books 533

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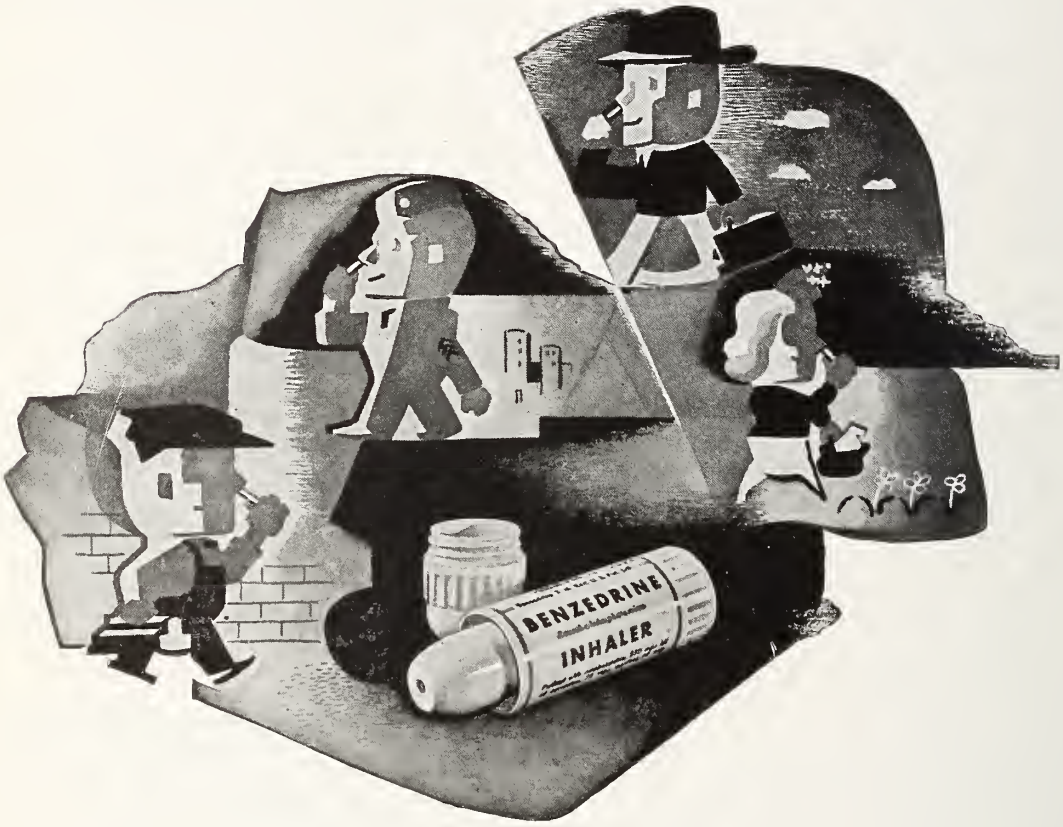

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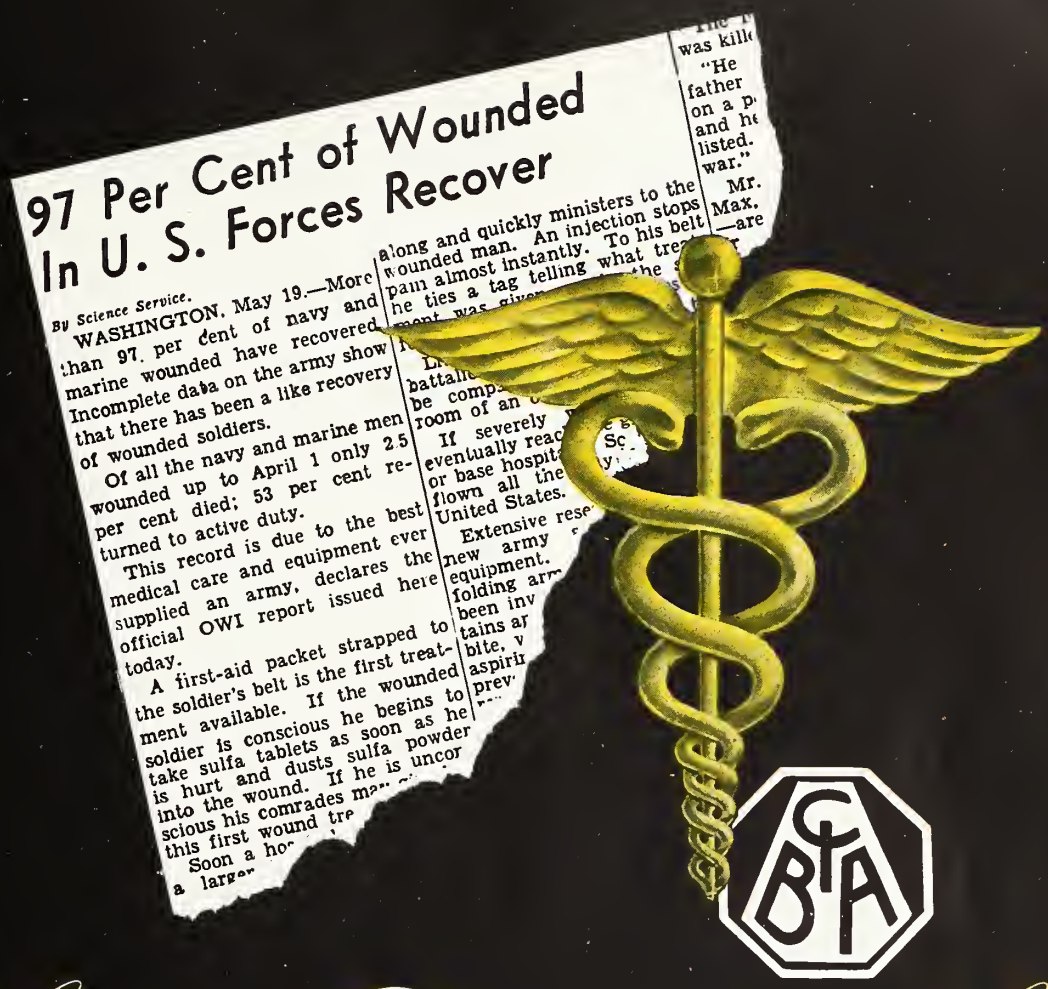

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COUNTY MEDICAL SOCIETY DIRECTORY

COUNTY	SECRETARY	TIME OF MEETING
Adams	Myron L. Habegger, Berne	Last Tuesday of each month.
Allen (Ft. Wayne)	Harry C. Harvey, Fort Wayne	1st, 3rd and 4th Tuesdays except June, July and August.
Bartholomew	Marvin Davis, Columbus	Last Wednesday evening of each month.
Benton	V. L. Turley, Fowler	Second Wednesday of each month.
Boone	John R. Porter, Lebanon	First Tuesday of each month.
Carroll	Charles Wise, Camden	Second Thursday of each month except June, July, August.
Cass	H. M. Shultz, Logansport	Third Friday of each month, except June, July, August.
Clark	E. P. Buckley, Jeffersonville	First Wednesday evening of each month.
Clay	Robert K. Webster, Brazil	Second Tuesday of each month.
Clinton	A. G. Chittick, Frankfort	First Tuesday night of each month.
Crawford	H. H. Deen, Leavenworth	
Daviess-Martin	C. P. Fox, Washington	Fourth Tuesday of each month.
Dearborn-Ohio	J. C. Elliott, Guilford	Last Thursday of each month except July, August.
Decatur	B. L. Mahuron, Greensburg	Third Wednesday evening of each month.
DeKalb	C. B. Hathaway, Butler	Every third month.
Delaware-Blackford	Bruce W. Stocking, Muncie	Third Tuesday of each month.
Dubois	P. J. Blessinger, Jasper	Quarterly.
Elkhart	O. E. Wilson, Elkhart	First Thursday of each month except June, July, August.
Fayette-Franklin	R. H. Elliott, Connersville	Second Tuesday of each month.
Floyd	G. Irene Polhemus, New Albany	Second Friday of each month.
Fountain-Warren	A. R. Kerr, Attica	Variable.
Fulton	A. E. Stinson, Rochester	First Friday of each month.
Gibson	Orville M. Graves, Princeton	Second Monday evening of each month.
Grant	R. W. Lavengood, Marion	Fourth Thursday of each month.
Greene	George Moses, Worthington	First Thursday following second Monday of each month.
Hamilton	A. F. Connoy, Westfield	Second Tuesday each month except July, August, Sept.
Hancock	Joseph L. Allen, Greenfield	Second Wednesday of each month.
Harrison	W. E. Amy, Corydon	
Hendricks	W. T. Lawson, Danville	Dates of meetings variable.
Henry	W. U. Kennedy, New Castle	Third Thursday of each month.
Howard	Ralph E. McIndoo, Kokomo	First Friday of each month.
Huntington	G. M. Nie, Huntington	First Tuesday of each month.
Jackson	Geo. H. Kamman, Seymour	First Thursday of each month at 8 p. m.
Jasper-Newton	W. G. Pippenger, Brook	Second Friday every second month.
Jay	B. M. Taylor, Portland	First Friday of each month.
Jefferson	O. A. Turner, Madison	Fourth Monday of each month.
Jennings	D. L. McAuliffe, North Vernon	Last Wednesday of each month.
Johnson	John H. Machledt, Whiteland	First Tuesday of each month.
Knox	C. L. Boyd, Vincennes	Third Tuesday of each month.
Kosciusko		Second Tuesday of each month.
LaGrange	Alfred Wade, Howe	Last Thursday of each month.
Lake	Harry Brandman, Whiting	Second Thursday of each month.
	Exec. Sec.; Mr. Rollen Waterson	504 Broadway, Gary.
LaPorte	Louis Moosey, Union Mills	Third Thursday of each month except July and August.
Lawrence	Morrell Simpson, Bedford	First Wednesday of each month except July and August.
Madison	M. A. Austin, Anderson	Third Monday of each month except June, July, August.
Marion (Indianapolis)	Wm. M. Dugan, Indianapolis	Every Tuesday evening.
Marshall	L. W. Vore, Plymouth	First Wednesday noon each month except July, August.
Miami	E. L. Burrous, Peru	Last Friday of each month.
Monroe	H. S. Hepner, Bloomington	Last Wednesday of each month.
Montgomery	W. M. Taylor, Crawfordsville	Third Thursday of each month.
Morgan	K. L. Dickens, Martinsville	Third Wednesday evening of each month.
Noble		First Tuesday after first Monday, Mar., June, Sept., Dec.
Orange	C. E. Boyd, West Baden Springs	Second Tuesday every other month.
Owen	Julia S. Thom, Spencer	Third Friday of each month.
Parke-Vermillion	A. E. Sabin, Dana	Third Wednesday of each month.
Perry	Earl R. Snyder, Troy	Tuesday before last Thursday of each month.
Pike	L. R. Miller, Winslow	Second Tuesday of each month.
Porter	John R. Frank, Valparaiso	Last Tuesday of each month, 8 p. m.
Posey	W. E. Jenkinson, Mt. Vernon	Second Tuesday each month, except June, July, August.
Pulaski	T. E. Carneal, Winamac	Last Tuesday night of each month.
Putnam	L. F. Gwaltney, Roachdale	Second Thursday of each month.
Randolph	Ivan E. Brenner, Winchester	Second Monday night of each month.
Ripley	George S. Row, Osgood	First Wednesday of each month.
Rush	W. H. Nutter, Rushville	Second Thursday night of each month.
St. Joseph	G. M. Rosenheimer, South Bend	1st and 4th Tuesdays and 3rd Wednesday, Sept.-June.
Scott	J. P. Wilson, Scottsburg	Third Tuesday of each month.
Shelby	J. A. Davis, Flat Rock	First Wednesday evening of each month.
Spencer	John H. Barrow, Dale	Variable.
Starke	J. F. DeNaut, Knox	Variable.
Steuben	W. H. Lane, Angola	Last Friday of each month.
Sullivan	J. S. Brown, Carlisle	First Wednesday of each month except June, July, August.
Switzerland	R. M. Copeland, Vevay	No meetings.
Tippecanoe	J. C. Burkle, Lafayette	Second Tuesday evening of each month except July, August.
Tipton	W. F. Tranter, Sharpsville	First Monday of each month.
Vanderburg	S. L. Bryan, Evansville	Second Tuesday of each month.
Vigo	A. M. Mitchell, Terre Haute	Second Tuesday each month except June, July, August.
Wabash	O. G. Brubaker, N. Manchester	First Wednesday of each month except July and August.
Warrick	J. T. Samples, Boonville	Second Tuesday of each month.
Washington	Claude B. Paynter, Salem	First Wednesday of each month.
Wayne-Union	Gladys Hill-Harmon, Richmond	Second Thursday of each month.
Wells	H. Brooks Smith, Bluffton	Third Monday of each month.
White	H. B. Gable, Monticello	Last Friday of each month.
Whitley	Park Huffman, South Whitley	Second Tuesday of each month.

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THE INDIANA STATE MEDICAL ASSOCIATION

Ninety-Fourth Annual Session—Indianapolis—Sept. 28, 29 and 30, 1943

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Assistant Secretary—Miss Lucille Kribs, 1021 Hume Mansur Building, Indianapolis.

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NINTH NAVAL DISTRICT MEDICAL SERVICES

CAPTAIN H. L. DOLLARD*
GREAT LAKES, ILLINOIS

The medical services of the Ninth Naval District are under the jurisdiction of the commandant and under the immediate supervision of the district medical officer, who advises the commandant in all matters pertaining to the Medical Department. Medical officers and a dental officer are assigned as assistants to the district medical officer.

The duties of the district medical officer are: to make inspections and necessary recommendations in regard to improving medical, dental, sanitary, and hygienic facilities of district activities; to maintain liaison with the district personnel officer and the director of training in regard to administration and distribution of personnel of the medical, dental, and hospital corps; to supervise matters pertaining to the care of the dead; to supervise the preparation, custody, and transfer of the health records of the Naval Reserve personnel and to maintain a list of all medical department personnel in the district; to supervise procurement of medical department material for naval training activities and to maintain a central property accounting system for such material; to supervise matters pertaining to the emergency employment of civilian hospital and medical services; to consult with and advise medical officers at district activities; to maintain liaison with officers of federal, state, and local agencies and national and state societies in matters of public health affecting naval personnel of naval activities; to prepare Ninth Naval District war plans covering district medical activities under the supervision of the War Plans Office; to supervise education in chemical warfare and defense; and to maintain liaison with medical organizations of the Office of Civilian Defense for coöperation and coördination with naval medical personnel in case of disasters, such as bombing attacks, sabotage damage, explosions, hurricanes, fires, and floods.

Under the present wartime emergency, which has necessitated restrictions, it will not be possible to discuss all the activities under the cognizance of the District Medical Office.

Venereal disease control, which includes supervision of education of all personnel, statistics, and liaison with civilian bodies and health department officials, plays an important role with all the armed forces. This department is under the direction of a specially trained medical officer. The program has been in operation since early 1942, and considerable progress has been accomplished in the reduction of the number of infections and the loss of time due to venereal disease. The Navy is actively aiding in the suppression of prostitution and the suppression of activities of civilians connected with the spread of venereal disease.

The Ninth Naval District, which includes thirteen states, is the largest of all our naval districts. Among the major activities are the Naval Training Station at Great Lakes, the Naval Hospital, and the Hospital Corps School. The combined emergency bed capacity of the Naval Hospital and the Medical Department of the Training Station is approximately eight thousand beds. In connection with the hospital is the Hospital Corps School, where both male and female (WAVES) hospital corpsmen receive their primary training. Scattered throughout the various states which comprise it are eighty-four training schools, where Navy personnel are taught various specialties pertinent to naval operations and efficiency both ashore and afloat. These training schools include the V-12 units, which were recently established in colleges and universities throughout the country as a Navy college training program, which permits college students to enlist as apprentice seamen (V-12) or (V-12(S)) medical and dental students. Medical and dental services and hospitalization are provided by the government. The training schools train men to be hospital corpsmen, radiomen, electricians, storekeepers, yeomen, Diesel engineers, of-

* Medical officer, Headquarters, Ninth Naval District.

A WAVE Drum Corps sets the marching pace for the regiment of WAVES and Marines in training at the Naval Training School for storekeepers at Indiana University, Bloomington, Indiana. Left to right: Kathleen G. Heidbreder, Marelyn Butz, Mary E. Fenn, Helen A. Helfman, and Beth Burr.

ficers, aviators, doctors, dentists, et cetera. WAVES are trained as hospital corpsmen, radiomen, storekeepers, and yeomen. All these schools have a Navy sick bay, medical officers, and hospital corpsmen, whose primary duty is to guard the health of the trainees in the schools. It is the duty of the district medical officer to inspect these schools periodically as to the efficiency of the Medical Department and the general sanitary and hygienic conditions under which the activity operates. If deficiencies are found to exist, corrective recommendations are made and carried out under his cognizance. It is the district medical officer's responsibility to see that all medical activities in the schools maintain proper equipment and supplies to care efficiently for the health of the crew. The supplies are furnished by the Navy Department or by contract with the activity in which the school is established.

The district medical officer is designated by the commandant to act as the accounting officer for all medical material and equipment issued to Naval Reserve units within the Ninth Naval District. He is required to maintain a record of all medical supplies of value and all medical equipment, by item and cost, issued to Naval Reserve units. A report of the total value of medical equipment and supplies issued during the year and a list of medical equipment on hand for each Naval Reserve unit is made to the Bureau of Medicine and Surgery at the end of each fiscal year. The district medical officer makes recommendations to the Bureau of Medicine and Surgery as to any modification in the items, quantities, and kind of medical supplies and equipment furnished the various types of Naval Reserve units. It is his duty, in part, to approve and modify, if necessary, all requisitions, public bills, services, outfits, supplies, and transfer of stores. It is also his duty to supervise the general correspondence, reports, and returns submitted by or pertaining to the medical departments of the various naval activities. He submits requisitions for commissioning outfits and issues instruction for the setting up of all naval medical activities within the district.

Defense against war chemicals is a matter of primary importance, and we have systematically worked toward making the military forces and civilians "gas conscious" to meet just such attacks. Under the supervision of the district medical officer, education of naval personnel in the medical aspects of chemical warfare has been carried out in the Ninth Naval District by medical officers who have completed the Naval Officers' Chemical Warfare Course of Instruction.

Additional instruction, as a naval liaison activity, has been given to civilian physicians attending the regional Office of Civilian Defense Instructors' Courses in Chemical Warfare.

Furthermore, a close liaison has been maintained with the medical gas officers of other federal agencies for the purpose of keeping mutually informed, particularly on the newer methods for training in medical decontamination of chemical warfare casualties.

Research work in methods of prevention and treatment of injuries from chemical agents is a permanent function of the Medical Department. This research is done in conjunction with other federal agencies.

The Marines at the Naval Training School in Bloomington, Indiana, set forth with smart military precision. Their course, like that of the WAVES, is twelve weeks in length and prepares them for duties in the Quartermaster Department of the Marine Corps. They receive their "boot" training at Camp LeJeune, New River, North Carolina.

McINTIRE DISPENSARY, NAVAL TRAINING STATION, GREAT LAKES, ILLINOIS

This is an 1800-bed dispensary, which renders full hospital service. It is named for Rear Admiral Ross T. McIntire, Surgeon General of the Navy.

Outpatient treatment and hospitalization are provided for dependents of Navy personnel whenever practicable. All medical services, which include treatment by Navy medical officers, drugs, dressings, x-rays, physiotherapy, and laboratory work are provided without cost to the patient. No dental care is included in this service. House calls are made within designated zones where Navy clinics are established. Hospitalization is provided in civilian hospitals in the given areas where Navy clinics are established at a minimum cost on a *per diem* basis, and professional care in these hospitals is furnished by Navy medical officers at no cost to the patient. In localities within the district where Navy outpatient clinics are not available but where there are other district activities having in their complements medical personnel, medical services are rendered to Navy dependents, providing such service does not interfere with the official duties of the Navy medical personnel. Navy hospitals may be authorized to admit Navy dependents if the facilities are adequate to care for patients other than active Navy personnel.

Diligent efforts have been made by the Army, Navy, and Office of Civilian Defense to establish coördination and coöperation between these agencies. Our chief concern lies in coördinating the medical departments of the military forces and the civilian units of the Office of Civilian Defense in vital war areas which might be subjected to bombing and sabotage or subjected to catastrophes, such as fires, earthquakes, hurricanes, and floods. Much has been accomplished, and yet much is to be desired. The need for such a unified organization assumes a much more important aspect in the coastal zones than in our own immediate district. However, we are of the opinion that planned organization should be carried still further throughout the district. At this writing, planned organization does exist in the vicinity of Great Lakes, and as a result casualties, evacuation, and treatment have been simulated.

Annual Convention

INDIANA STATE MEDICAL ASSOCIATION

INDIANAPOLIS

September 28, 29 and 30, 1943

HISTORY OF ORGANIZED ANESTHESIA IN INDIANA

FLOYD T. ROMBERGER, M.D.
LAFAYETTE

A more fitting introduction could not be used for this terse summary of events than a sharply pointed quotation coined by one of New York State's most famous citizens, the late ex-president Theodore Roosevelt, who, in defining success, said that it consisted of, "Doing the best you can with what you have where you are." This is short. It is full of teeth. It is true.

Measured by the yardstick of this uniquely homespun philosophy, we of the sovereign state of Indiana are proud indeed of our accomplishments in organized medicine—those of the past, those now in process, and those still in project. Among the coördinated efforts in our great state during the past decade were: (1) The executive session of the State Board of Medical Registration and Examination, on March 30, 1934, at which time it enunciated a two-fold principle that, (a), under the Indiana law, a corporation cannot be licensed to practice medicine, and (b), that a nurse, being without a medical license, is not entitled to administer anesthesia in Indiana. (2) The opinion of the Indiana Attorney General, as of August 2, 1934, to the effect that, "The administering of an anesthetic is a duty to be performed by a licensed physician only." And (3), the creation, on October 11, 1934, of a Section on Anesthesia by the House of Delegates of the Indiana State Medical Association, thus definitely and positively and indistinguishably welding professional anesthesia to and making it an inseparably component part of organized medicine. There is where anesthesia belongs—emphatically so!

It is recognized quite fully that a section on anesthesia was created by the California State Association several years ago. However, without depreciating the genuine value of or detracting in the least from the real accomplishments resulting from that pioneer effort, for that it was, yet it is claimed that never before in the medical history of the United States has anesthesia become so firmly and so solidly integrated, so intimately interwoven into the very woof and fibre of an organized state association, as it has in Indiana. In Indiana professional anesthesia has become indisputably established, both in deed and in fact, as medical practice. Further, it has been so accepted throughout the state.

A close study of the immediate background, a keen analysis of the underlying psychology, an intimate dissection of the personalities involved, and the true inside story of the factual happenings—all, all these are thought to be of more than ordinary interest to anesthetists everywhere; and, it is for these reasons, for the abstract yet distinct purpose of preserving these details of action and reaction for future study, so that we may learn even by our very mistakes, that I essay to place in writing a compact story of the remote and the nearby phases of what occurred in Indiana, the whole condensed from an entire volume of compiled records and intimate correspondence which actually passed through my hands.

You will better understand the play and counter-play therein involved if you will keep in mind the fact that for many years organized medicine in Indiana has remained as compact and as solid as is the Rock of Gibraltar, despite the violently raging seas of wild-eyed and communistic theories of medical practice. In the more recent storms of hysterical experiment-o-mania, we have refused to be the guinea-pig. On all fronts we have held strongly steadfast to the tried and true principles so firmly established by past experience, yet we stand ever ready to adopt that which has proved good among the new. Our state association ranks among the best. Our full-time executive headquarters is surpassed by none. On the roster of the ex-presidents of our state association, almost without exception, are emblazoned brightly the names of the real leaders of our profession throughout the state—all men engaged in active, competitive, private practice. They were and are grass-roots doctors.

On March 30, 1934, our State Board of Medical Registration and Examination went into executive session and, after due consideration and mature deliberation, issued the epochal edict that the administration of an anesthetic was in deed and in fact medical practice. They notified all the hospitals of the state of Indiana of this decision, citing two counts, one against the hospital, the other against the nurse. (1). Concerning the hospital: "The hospital is violating the Medical Practice Act, as a corporation can not have the privilege of practicing medicine under the law." It was becoming increasingly obvious to the board that in the event it is permissible for hospitals to use nurses to practice medicine in the form of anesthesia, then, indeed, it would be no departure from principle for hospitals to employ surgeons, obstetricians, or what-not, and collect or chisel in on the fees—syndicated practice! Further, a corporation can not be licensed to practice medicine, because a medical license is an individual property right; nor can a licensee lend his license to a corporation or to a lay person, such as a nurse. (2). The Board's interpretation relative to the nurse anesthetist was: "The nurse is practicing medicine without a license, as she is assuming duties which are, under the law, those of a licensed physician." This was and is the board's interpretation of the Indiana Medical Practice Act.

This action on the part of the board came to many as a complete surprise. What was back of it? The causes did not drop suddenly from the clear-blue sky, nor did they blossom over night in the leafy woods or in the grass-grown prairie. No! There were certain very definite factors or trends which these men were able to foresee and to analyze, factors and trends which of dire necessity, if organized medicine as we now understand it is to survive, forced them to come boldly forth with a positive and leading stand.

Let us look at their decision from several different angles. First, what of the personnel of that board? It had seven members: Dr. F. S. Crockett, of Lafayette; Dr. W. R. Davidson, of Evansville; Dr. J. W. Bowers, of Fort Wayne; Dr. Leslie Sammon, of Shelbyville; Dr. N. E. Harrold, of Indianapolis; Dr. E. O. Peterson, of Laporte; and Dr. Cecil Van Tilburg, of Indianapolis. All coöperated in the decision, but the first three were the leaders of thought and the men of influence because they are regular practitioners. Who are they? What of their psychology and their background in organized medicine? Well, Dr. Crockett is an ex-president of the Indiana State Medical Association, one of the most distinguished ever to honor that position of responsibility, and he now stands ace-high in the inner circles of the American Medical Association. A profound thinker with a keen and analytic mind, a past master in the art of diplomacy, he has the ability to foresee the interdependence and interrelationship between many apparently non-related actions. Dr. Davidson also is a brilliant ex-president of our state association. He has served a long and arduous stewardship in organized medicine in our state, both before and since then. He was secretary to the board. Dr. Bowers on several different occasions has fulfilled positions of honor and trust in the Indiana State Medical Association. Here, then, were the three most prominent and most influential members of the board—all thoroughly schooled and grounded in the basic, fundamental principles of medical practice and medical organization. Here were men who were thinkers, men who were leaders, men with wide acquaintance throughout the state, men with contacts in every field of professional endeavor. For many years it has been one of my most intense, personal gratifications to have had their close friendship and to have been "tuned in," as regards organized medicine, on the wave-length of their most confidential thoughts and discussions. I have learned much.

Let us examine the Medical Practice Act of the State of Indiana. First, however, what is a medical practice act in any state? What is its purpose? The medical practice acts of the several states of the Union are laws passed by their legislatures under the police powers of the respective states, powers guaranteed to each state by the Constitution of the United States as a part of their retained States' Rights. These medical practice acts are not for the vain and glorified purpose of creating a medical monopoly within each state, nor are they primarily designed to regulate the intimate details of medical practice. No, the acts were passed as necessary measures for the protection of the public weal, so that unqualified and unscrupulous practitioners may not foist themselves upon the unsuspecting citizenry of their respective states. This is an exceedingly important basic principle. Keep it ever in mind. The several acts set up certain imperative standards of preliminary education and of subsequent medical training, which requirements must be met by every individual doctor before he essays to practice medicine within that particular state. The acts create, also, the essential machinery for their enforcement, i.e., the respective state boards of medical registration and examination.

Now, recognize an additional development, also one of basic import. In meeting the standards or requirements of any particular state board to practice medicine within that particular state, under its law, and by so doing being granted a license to practice medicine within that state, the individual doctor thereby secures for himself a positive and inviolable "property right," a right guaranteed to him under the Constitution of the United States. Those who would infringe upon this right through unlicensed practice do so at their own peril. This has been definitely and unequivocally established in the higher courts of our land, notably in Ohio, West Virginia, and California.

Acutely and astutely mindful of these facts, looking far into the future of medical practice, the Indiana State Board of Medical Registration and Examination scrutinized our Medical Practice Act for the nth time. Here is how the Indiana law defines the practice of medicine:

> ". . . to announce to the public in any way a readiness to practice medicine in any county of the state, or to prescribe for, or to give surgical assistance to, or to heal, cure, or relieve, or to attempt to heal, cure, or relieve those suffering from injury or deformity or disease of mind or body . . ."

Obviously, in the board's opinion, this included the administering of an anesthetic drug or agent.

The medical practice acts in many states of the Union are now quite similar, but with certain differences and exemptions which will be brought out later.

The Indiana board was not peculiarly and particularly and solely interested in the objective of anesthesia as being medical practice; rather they took a far broader attitude. They felt most keenly that to them had been delegated the authority and upon them rested the responsibility of strictly enforcing the Indiana Medical Practice Act in every phase, whatever the method of practice, so that all and everyone who would attempt to heal, cure, or relieve medical sickness or surgi-

cal illness, by any means whatsoever, should first qualify for such practice under the law as laid down by the sovereign state of Indiana. In other words, the public weal was and is and ever remains the fundamental consideration.

This is vitally significant. In going before any medical society, board, hospital staff, committee, state legislature, court, or House of Delegates, do not speak for yourself alone, nor of any one set specialty, or for any particular method of medical practice; rather discuss the far more important problem of safeguarding the public weal. This you can do enthusiastically, passionately, and vehemently with all the pathos and oratory at your command, and yet you can remain entirely impersonal and wholly scientific, and thus avoid exposing yourself unnecessarily to adverse criticism from the angle of self-interest. To pursue any other course is exceedingly unwise, unsmart.

If you think that the Indiana board was unduly exercised over coming events, then read the Proceedings of the Annual Congress on Medical Education, Hospitals, and Licensure, Chicago, February 18 and 19, 1935, one year after the Indiana board's decision. (This report may be purchased from the American Medical Association for eighty-five cents.) I quote a few pertinent excerpts:

> *From page 43:* "If the property right to practice medicine is not upheld, as interpreted in West Virginia, Indiana, and California, and safeguarded by the profession, the socialization and corporation practice of radiology, pathology, and anesthesia will be the future fate staring all other specialists, including surgeons, in the face."
>
> "The economic factor responsible for 25,000 too many doctors is that 25,000 technicians are practicing socialized and corporation medicine."
>
> *From page 49:* "An organization of nurses wrote a letter that it proposed to open in Indiana laboratories for clinical diagnoses and would be prepared to examine all pathologic material including serologic specimens."
>
> *From page 50:* "In noticing the program of a recent meeting, I found that the session of the association of nurse anesthetists was to be held in conjunction with it: the subjects announced were 'post-operative complications,' 'the way to determine the proper anesthetic,' and others."

Therefore, in issuing its edict concerning anesthetic practice, the Indiana board felt that they were forehandedly protecting their citizenry from present and from future assaults upon the unimpeachable integrity of present-day medical practice by unwashed, long-haired theorists and by pink-hued, leftist experimenters—many of whom, unable to enter medical practice by the front door, were perfectly willing to use the side door, the back door, the cellar door, or any available trapdoor.

This ruling of the Indiana board provoked widespread comment, both from within and from without the state, mostly favorable but some unfavorable. Therefore, it was deemed advisable to secure an opinion from the State Attorney General as to legality. This was done.

On August 2, 1934, in a letter to the board, Attorney General Lutz rendered the following opinion:

> "It is general knowledge that an anesthetist, in rendering a person insensible to pain must, in the administering of this agent, continuously diagnose and keep a careful watch and supervision over the amount of the agent that is to be administered.
>
> "It is impossible for the surgeon to perform his operation and also to assist in any way in the administration of an anesthetic.
>
> "The law is . . . 'to prescribe for or to give surgical assistance to, to heal, cure, or relieve . . . shall be engaged in the practice of medicine within the meaning of this Act.'
>
> "It follows from the above that, in our opinion, the administering of an anesthetic is a duty to be performed by a licensed physician only.
>
> Phillip Lutz, Jr.,
> Attorney General"

The broad significance and the momentous import of the above official opinion from a nonmedical mind, a legal mind, is obvious. It needs no discussion.

Now, it might be asked, Where were the Indiana anesthetists all this time? They seem to appear at no place in the picture. However, such is not the case. Things were moving in our direction with every satisfaction, and our position was immeasurably strengthened by remaining in the background. Our friends were fighting for us.

Almost from time immemorial, as concerns organized medicine in Indiana, anesthetists, scattered far and wide over the entire state, continually were working shoulder to shoulder with the other specialties and carrying their share of the load. For example, in Terre Haute Dr. C. N. Combs, as far as time and service are concerned, was perhaps the dean of anesthetists of Indiana. He is an ex-president of our state association; he has a permanent seat in its House of Delegates. He was a long and faithful servitor for organized medicine. He had and has many friends and contacts. In his city live Dr. Weinstein, also an ex-president, and Dr. Alexander, at that time chairman of our state association council. All these men stand high in organized medicine in Indiana. They work in daily contact with each other.

Again, in Evansville resides Dr. Clarence Baker, an anesthetist of prominence. He is in immediate touch with Dr. Davidson, the secretary to the board.

As for myself, in Lafayette I was in constant communication with Dr. Crockett. Further, for ten years I labored in the House of Delegates of our state association, first as a representative from Tippecanoe County, then, later and still, as councilor of the Ninth Medical District of ten counties. I held membership on the editorial board of our state journal, thus being closely associated both with executive and editorial headquarters.

Marion County (Indianapolis) alone has four or five good medical anesthetists. Several ex-presidents, a councilor, and ten delegates are from that county. Accordingly, the story of the contact of anesthesia with organized medicine in Indiana could be carried on almost *ad infinitum;* suffice it to say here, for more will be told later, we ever were striving for the common good.

It was in August, 1934, following the opinion of the attorney general on the ruling of our State Board of Medical Registration and Examination, while sitting one hot afternoon in my office pondering upon the seeming imponderables of organized medicine in general and upon those of anesthesia in particular that all at once there loomed before me the broad highway, definitely marked, upon which anesthesia would have to travel in order to emerge from the clinging morass and the apparently inextricable maze, both of which were retarding not only our spiritual and professional growth, but also our just and lawful recognition.

That highway was sign-posted "Organized Medicine." Upon it, toward their ultimate destination, whatever that may be, arm in arm and shoulder to shoulder, were marching medicine, surgery, obstetrics and every other specialty. Why not anesthesia? Clearly, this must come if anesthesia were to progress and to endure as a permanent and an unquestioned part of medical practice. Otherwise, and ultimately, anesthesia would degenerate from a profession into a mere technician trade. Debating thus with myself, there appeared but one rational way to attain this objective, all within the fold of organized medicine, and that was to demand as our inalienable right a section on anesthesia in state after state in the Union, until the American Medical Association must of necessity grant us full and unqualified recognition. Half-way measures would not suffice. And, why should they? Why apologize? What specialty has added more to medical and surgical progress in general than has anesthesia? Without it, where would all surgery be? In the barber shops!

Contemplating thus, an inward moan escaped that we had been looking through the glass darkly so long that we had, in fact, not been able to recognize the pay-dirt lying before our very doorstep. The heretofore sluggish turbidity of my mental processes made me feel most humble, for with my intimate knowledge of organized medicine as exemplified in our own state setup, there was indeed confidence of what could be accomplished in Indiana. To think is to act, and the plans were laid most carefully.

First, writing to Dr. Combs, of Terre Haute, dean of Indiana anesthetists, I suggested that it might be a timely thing for him to call a meeting in his city or at some central Indiana point for the discussion of our common problems. Dr. Combs quite generously and most graciously insisted that the anesthetists be invited to come to Lafayette, stating that he believed all would be happy to do so. Accordingly, personal letters were dispatched to every anesthetist in Indiana, enclosing a return post-card to facilitate acceptance of my invitation to be my dinner guest at Lafayette. We also had in mind the idea of having these anesthetists contact the Research Foundation of Purdue University. Later reminder cards and road directions were mailed to those who appeared willing to come. Who would come? Who would not come?

The result was an astounding surprise. The most sanguine expectations were exceeded. Without any intimation of what was to happen, other than that a juicy steak would be placed before them, more than thirty anesthetists came to Lafayette on September 11, 1934. They came from two hundred and ten miles away; they came from over a hundred miles, and they came from nearby.

Meanwhile, the Indiana Medical Practice Act and the Constitution and By-laws of the Indiana State Association were re-studied. It was found that a section on anesthesia could be obtained by the House of Delegates mandating an amendment to the By-laws to create such a section. It was interesting to note that an amendment to the Constitution would take a year, from one annual session to another; however, an amendment to the By-laws would take, if properly presented, only two days, and it could be put through at one single session. This was our guide to action and materially influenced our plan of battle.

At our dinner meeting on September 11, 1934, we had two prominent guests: Dr. F. S. Crockett, representing the State Board of Medical Registration and Examination, and Mr. G. Stanley Meikle, Director of Research, Purdue University. Both addressed our group most interestingly. Then, while all were being happily fed and their enthusiasm was running high, I arose to discuss a plan for securing a section on anesthesia in the Indiana State Medical Association. I produced and read the following, cut and dried, already prepared:

RESOLUTIONS

"WHEREAS the Indiana State Board of Medical Registration and Examination has rendered a timely ruling to the effect that administering an anesthetic is in deed and in fact Medical Practice; and

"WHEREAS this decision has been upheld by the Attorney General of the State of Indiana; and

"WHEREAS the hospitals of the state of Indiana have been notified and asked to comply with the aforesaid ruling; and

"WHEREAS it is believed that this is for the benefit of the public weal and for the good of the medical profession at large; and

"WHEREAS the undersigned physicians have been practicing in whole or in part the specialty of anesthesia for a varying number of years; and

"WHEREAS those whose signatures are herewith appended are licensed to such practice of medicine in the state of Indiana, are members of their respective county societies and, through them, of the Indiana State Medical Association; therefore

"BE IT RESOLVED that we, the undersigned, petition and pray that the House of Delegates of the Indiana State Medical Association grant to us, as our inalienable right, the privilege of organizing a Section on Anesthesia wherein we may meet to discuss the social and economic features relating to and wherein we may present scientific data pertinent to the specialty of anesthesia; and

"BE IT FURTHER RESOLVED that the following amendment be made to the present Constitution and By-laws of the State Association, to-wit:

"Chapter III of the By-Laws, entitled Sections, to read as follows:

"Section 1—During the Annual Session, the Association may meet in the following Sections:

a. Surgical.
b. Medical.
c. Eye, Ear, Nose and Throat.
d. Anesthesia.
e. Any other Sections that hereafter may be provided for by the House of Delegates.

"Respectfully submitted,

Floyd T. Romberger, M.D., Lafayette
Lillian B. Mueller, M.D., Indianapolis
Robert M. Kelsey, M.D., LaPorte
Wendell L. Spalding, M.D., Mishawaka
E. M. Sirlin, M.D., Mishawaka
Paul E. Haley, M.D., South Bend
J. M. Whitehead, M.D., Indianapolis
H. A. Kinnaman, M.D., Crawfordsville
R. A. Geider, M.D., Indianapolis
C. H. Jinks, M.D., Indianapolis
F. A. Thomas, M.D., Indianapolis
F. W. Ratcliff, M.D., Lafayette
Charles U. Combs, M.D., Terre Haute
S. C. Wagner, M.D., Elkhart
Clarence S. Baker, M.D., Evansville
C. E. Ragan, M.D., Terre Haute
Earl M. Shenk, M.D., Kokomo
Arthur W. Hull, M.D., Elkhart
Richard B. Stout, M.D., Elkhart
Joseph C. Dusard, M.D., Bedford
B. J. Matthews, M.D., Indianapolis
E. A. King, M.D., Ft. Wayne
Paul S. Yocum, M.D., Gary
E. T. Zaring, M.D., Terre Haute
A. M. Kirkpatrick, M.D., Columbus
Grace Caufman, M.D., Evansville
Earl VanReed, M.D., Lafayette
Etta Charles, M.D., Anderson
H. G. Martin, M.D., Lafayette
H. E. Klepinger, M.D., Lafayette"

Observe several quite pointed and most searching features in these resolutions: (a), the first consideration was and is the public weal; (b), the signers already were practicing anesthesia in Indiana for a number of years; (c), these men considered this to be medical practice; (d), they were licensed by the sovereign state of Indiana to such practice and thereby possessed certain property rights under the Constitution of the United States; and (e), they were members of their respective county medical societies and thus, too, of the Indiana State Medical Association. In other words, we already were a part and parcel of organized medicine. How, then, could we be denied? Approached in this manner, would it not be rather embarrassing for the House of Delegates to refuse? Were we not as one with them?

After the formality of signing the resolutions, lines of battle were laid, and we then adjourned to meet at the state association assembly one month later. But in the meantime much concentrated effort was put forth. Incantation was useless. Without fear or favor, believing in the righteousness of our cause, we bucked through the line. Scorning the system of "a punt, a pass, and a prayer," through my office flowed a swelling stream of correspondense, the bi-weekly bulletins which were issued, and the final directions to my cohorts all over the state. Yes, it was more than a one-man job, quite and entirely obviously so, but, given a squad of thirty active, capable, and willing workers, almost any House of Delegates can be measurably impressed, and, if we do not win, at least the opposition will know that there has been a goal-line scrimmage.

To make a long story short, we played politics. We concentrated upon that House of Delegates. They had the votes and the power, under the Indiana Constitution and By-laws, to give us what we wanted. Now, the Indiana House of Delegates is composed of the county-elected representatives, the district councilors, and the ex-presidents. On these men, then, we expended our every effort.

Yes, we played politics. Why? Well, those of you who know this United States of ours know that it has a political form of government; you know that we are a democratic country; and you know that in the absolutely final analysis the majority rules, this through our elective representatives. Now, it is even more thoroughly a fact, though perhaps not so well appreciated, that our state medical associations throughout the Union are emphatically and entirely democratic both in their organization and in their activities. The House of Delegates, comprised of the county-

elected representatives, through the collective expression of the composite, professional opinion, has the final and absolute power to formulate all medical policies and to decide all medical questions. It is important for you to recognize and to remember this. Hence, we anesthetists in Indiana devoted our entire efforts to that body. We set out to mould its opinion. We tried to follow ex-president Theodore Roosevelt's dictum to do the best we could with what we had where we were.

In this connection it is interesting to quote a verbatim excerpt from Samuel G. Blythe's writings, as published in the *Saturday Evening Post* of September 22, 1934:

> "The New Deal has changed, even obliterated, a large number of the accustomed, precedented phases of our American life, but it has not changed our politics. Nor our politicians. None of the professors has evolved a new code for political practice, behavior, or tactics. Hence, we still are proceeding as of yore, playing our politics as it has been played since 1776, with the same incentives, the same machinery, operators, ballyhoo, tub-thumping, pork-demanding, log-rolling, pointing-with pride, and viewing-with-alarm methods that have always prevailed."

There is a profound lesson in *modus operandi* in those words, and we of Indiana offer no apology for our method of approach in so far as it pertains to prosecuting our action before our House of Delegates relative to a section on anesthesia.

We studied that in-coming House of Delegates. Long service therein had put me in contact with every ex-president and every councilor, and I knew, personally, most of the regular delegates. We compiled a list of possibilities and probabilities and made direct and positive efforts to contact every member of this assembly.

What did we say to these men? We combed the bushes and beat the mesquite for ideas. (1) First and most importantly, we stressed the public weal. Many pages could be written on this topic. Many hours could be spent in the discussion of the economic features as they relate to the profession, to the hospitals, and to the laity. (2) Next, we talked organized medicine, pointing out in particular that organized medicine needed, now more than ever before, every single doctor within its fold—all actively interested in perpetuating and perfecting what we already have attained. We offered organized medicine in this state a compact and active group of more than fifty. (3) We showed them that whereas in most places doctors, themselves, were having a hard time earning a livelihood and that many were subsisting on charity or on part-charity, yet, by persistent chiseling and perpetual boring, both from without and from within our own profession, lay people constantly were taking jobs away from medically-trained doctors, in many different professional activities, that too, without a license to practice medicine, thus leaving doctors to walk the streets unemployed. We promised the help of organized anesthesia in repelling this growing and insidious invasion. (4) We warned them of the third-party grafting now taking place in anesthesia and that the precedent thus being established in our field quite easily might extend by mere contact contagion into every sphere of medical and surgical practice. How sad that would be! Who could fathom the depths of disintegration? (5) We pointed with pride to the scientific accomplishments of modern anesthesia, both clinical and research, demonstrating in minute detail the definite values of professional anesthesia. (6) We viewed with alarm the ever-growing tendency on the part of many misguided and only-too-avid welfare workers, and on the part also of certain hare-brained and rose-smelling Ph.D.'s to tell doctors of medicine how, when, and where to practice their art. And at what price? (7) We expressed the idea that the time had come, right here and now, when the practice of medicine should belong to doctors, whatever the phase, when doctors, themselves, should rule and govern medical affairs, and when doctors, themselves, should say who should and who should not engage in medical practice. (8) We discussed the property rights which every licensed physician automatically holds under the Constitution of the United States and how these rights were and are being infringed upon, most subtilely, not only in anesthesia but also in laboratory pathology, in physiotherapy, in radiology, in optometry, in obstetrics, and in other fields. Whither would such trend lead us? (9) We reviewed for their benefit the help which anesthetists already had rendered in furthering the scientific programs and the scientific exhibits of our state association, and that the organized anesthesia section would be still more useful. (10) In the event that tests of the Board of Registration and Examination's ruling should be made in the courts of Indiana, then not only anesthesia but also organized medicine as a whole would be immeasurably benefited if it truthfully and forcefully could be said that anesthesia actually was and is a part of medical practice and that it was and is so recognized by our state association.

Thus, in sum, we endeavored to prove to those interested in organized medicine in Indiana that organized medicine needed the anesthetists and that the anesthetists needed organized medicine. They were one. An inseverable mutuality of interest existing, we demanded as our inalienable right that just recognition which truly belonged to us, namely, a Section on Anesthesia in the State Medical Association. And, it was granted unto us.

The story of the skirmish in the House of Delegates on October 9, 10, and 11, 1934, regarding our resolutions on a section, could be made quite lengthy and detailed; however, I will compromise by touching only on those points of pertinent and possibly useful interest.

The resolutions were presented at the first assembly of the House on the afternoon of October

ninth. As per usual custom the document was referred to a reference committee for study and for recommendation to the second and final meeting of the House on the morning of two days later. In this particular instance both the Committee on Constitution and By-laws and the Committee on Sections had jurisdiction. Therefore, it went to them jointly.

Called before this combined committee the following day, shortly after noon, an hour was allotted in which to state our case. I knew intimately every one of the ten members, excepting only the chairman, and I had a how-do-you-do acquaintance with him. In this committee we discussed the situation quite frankly. They seemed favorably impressed. (Later, I found, not quite favorably enough.) They really raised only two questions: (a), Were the anesthetists important enough and sufficiently organized for the House of Delegates to recognize their demands? and (b), Would not the granting of a section to the anesthetists so stimulate the pediatricians, the pathologists, the radiologists, et al., also to ask for the same recognition and thus cause, through multiplicity, chaos in the state association program? These inquiries were countered with: (a), the anesthetists of Indiana were perfectly willing to undergo a test of strength in the House of Delegates; and (b), we had every confidence that our executive headquarters would find us to be of help rather than a hindrance in the state organization. The matter rested there.

Imagine our surprise, nay, even our chagrin and disappointment when we learned that the old, old story of the laboring mountain bringing forth a mouse was about to be repeated. The committee came out of a two-hour conference with an exceedingly cleverly composed straddle. They presented the anesthetists with a beautifully scented bouquet of complimentary remarks about anesthesia in general and about Indiana anesthetists in particular, while out of the corner of the mouth they seemed to say, "Now sit down on the outer doorstep for a few years and be happily contented until it is determined whether you deserve admittance." That, in effect, was to be their recommendation to the House of Delegates at the next morning session. This may be said: They were very fair; they did what they thought was right. But they did not know that House of Delegates, as well as we felt that we did, i. e., how much work we had done forehandedly. The committee chairman hunted me out and discoursed a good half-hour in an effort to justify their stand. He even gave me a carbon copy of their report. To all his arguments was given but one reply: The House of Delegates shall decide.

After he disappeared behind a lobby pillar, I grabbed my lieutenant-in-chief, Dr. Combs, and dragged him into the hotel drug store where I bought him—believe it or not—a Coca-Cola. He needed it; his face was chalk-white at the news of our seeming rebuff. Together, we called on one of our state association's most able ex-presidents for counsel and advice. Our fighting blood was aroused; we determined to nail that committee right down into their seats, and then clinch the nails on the bottom side. This board of strategy evolved the following plan: (1) An amendment to the committee's report was drafted, retaining all the flowers and the perfume but cutting out entirely the words relating to postponement and substituting therefor a mandate from the House of Delegates itself for the immediate revision (giving the exact words) of the By-laws of the State Association to create a Section on Anesthesia. (2) Dr. Combs and his co-workers undertook to retrace our steps and re-interview all the rank and file delegates. This they did, working far into the night. (3) I contacted an especially selected list of ten members of the House, each one either a delegate of outstanding influence, or a councilor or an ex-president. To all of these we told the inside story, very, very frankly, of what the committee proposed to do. Those on my list of ten were coached and gladly consented to follow me upon the floor of the House the next morning with favorable speeches for our amendment immediately after it had been presented.

Here is what happened on the showdown: The committee reported. Then was presented the amendment to their report eliding the postponement and mandating an immediate section, accompanied by such a barrage of oratory which neither before nor since has been mine to command. Our previously interviewed supporters, one right after the other, made their speeches in our favor. None spoke against!

When the vote was called on the amendment, there was a veritable thunder of "Aye," not one "Nay." On the report as amended, again came a unanimous chorus of "Aye." And, again, not a single "Nay." Yes, we had the nails clinched on the bottom of those chairs. The Section on Anesthesia was ours.

The record of the proceedings and the program of the first annual session of the Section on Anesthesia of the Indiana State Medical Association, held in Gary, Indiana, October 9, 1935, both have been published in THE JOURNAL of the Indiana State Medical Association and need no reiteration at this time. However, it may be of interest to make just a few pertinent comments in a manner aside. When our executive secretary showed me the room assigned for the use of our section, he stated that fifty chairs would be available and wondered whether or not that number would be sufficient. I expressed the opinion that if thirty came to our meeting I would be happy, and that if forty or more came I would be delighted. I well recalled numerous occasions when our state sections on medicine and surgery had less than one-half that attendance. Imagine my surprise, when the session began, to find every seat occupied and

guests and members standing along the walls. Some came and stayed for one or two papers, then left, their places being taken by others. It may be safely stated that more than eighty were present. A very prominent Chicago pediatrician, a man whose name all would recognize should I mention it, addressed our state association general assembly most brilliantly in the forenoon, then spent the entire afternoon in our Section on Anesthesia. A Chicago surgeon sat with us for two theses and left after remarking that what he had listened to in our section convinced him that anesthesia was a coming force and should be so recognized by organized medicine. In addition to members of the Indiana Association, others present represented the societies of Kentucky, Ohio, Michigan, Illinois, Wisconsin, and California. Dr. Waters, of Madison, Wisconsin, was our leading out-of-state attraction at this meeting.

Our second session, held in South Bend, in 1936, had Dr. Sise of Boston, Massachusetts, as the star attraction. This meeting also was well attended.

The 1937 assembly took place at French Lick, and all previous records were broken. Dr. Lundy of Rochester, Minnesota, was our leader, and after the session he expressed complete surprise at the attendance, at the interest, and at the enthusiasm.

We now come to the important question, What is a Section on Anesthesia? The query may seem altogether idle, innocently futile, or even foolishly simple to some. However, such is not the case. My pupils dilated in surprised astonishment, I have heard this question asked time and again during the past decades, by anesthetists—some who have been in that practice for a goodly number of years! I could give names and name places. Smugness and self-complacency embracing them as if in the arms of Morpheus, these men oftentimes are the very ones who loudly raise their whining voices to high heaven crying out, Why don't somebody, sometime, somehow do something about anesthesia, somehow, sometime, something for me? Unfortunately, there is no pink-pill panacea to be taken before meals, after meals, or at bedtime as a cure for such lethargy. It is utter folly to sit idly by, mouth curving downward, eyes behind dark glasses and with an empty tin-cup in hand, expecting the casual passerby to give some bewitching remedy for our anesthetic ills. Ours is the decision; ours the action!

We have been pursuing the scientific research; we have been perfecting the several and various techniques; but what we now need the most, in these trying, ever-changing, professorially brain-trusting days, is just and lawful recognition and acceptance everywhere in every court of the land, that anesthesia in deed and in fact is medical practice. It seems almost laughably paradoxical that the first of our objectives, yet seemingly the one the hardest to attain, is to convince our own medical profession itself. Many doctors, indeed, are profiting financially from nurse exploitation, to say naught about hospitals. What a burlesque! Were the problem not so absurdly serious it would be ridiculous. As I see it, the quickest, the most positive, and certainly the most stable and most imperishable way to accomplish this end is to seek a Section on Anesthesia in every state society in the Union and then in the American Medical Association itself. Then, indeed, will our standing never be questioned. Then, indeed, anesthesia will draw to itself its due and rightful proportion of better-grade medical graduates. Then, indeed, do we become an integrated part of organized medicine, participating to the full in all its activities, for therein lies our destiny. By no stretch of the imaginative processes can it ever be otherwise. Just as certainly as the tides rise and fall, if the protecting ramparts of organized medicine crumble in the present crisis, we, perforce, must go down with them. We need organized medicine's support; it needs ours. Then, indeed and finally, there never will be the least question of our status ever befogging the viewpoint of laymen, wherever they may be, or of any single hospital staff which would regulate our activities, or of any single legislature which passes our laws, or of any single court before which may come the problem for decision.

Do you think these ideas of the importance of this forward-looking action are overstressed or exaggerated? Then contemplate thoughtfully but two court decisions.

The Kentucky Court of Appeals (1917), in a decision favoring the defense for a nurse anesthetist, used these words:

> "It would seem that she was not engaged in the pratice of medicine within the meaning of that term and in accordance with its popular sense."

Note in particular the phrase, "in accordance with its popular sense." Who created this popular sense? Doctors? None others! Through short-sighted indifference! What an indictment of the medical profession! In the words of the immortal Cicero: "How long, how long will we permit this to occur?"

Read, also, an excerpt from a quite similar case before the West Virginia Court of Appeals (1922), with this phraseology:

> ". . . as neither the common law nor any statute of this state requires such administration. . . ."

Now, who makes the different state statutes? The legislators! And, usually, the laws are made in response to this so-called "popular sense." Further, a learned judge once confessed in confidence to me, concerning other matters, that courts in general like to render decisions which meet this so-called "popular sense." Why? Because they hold elective offices! Imagine what happens to your defense mechanism when a court or a committee of legislators asks: "Why then are you not recognized by your own state association?" The remedy is obvious. We must create a "popular sense" in favor of professional anesthesia.

Before the law, in any given crime, the intent or the implied purpose and not the actual assault is the violation of the law. In some states and many communities, lay (nurse) anesthesia is permitted or condoned behind the thinly camouflaged words, "under the supervision of and in the presence of a licensed physician." This is of itself, *ipso jure*, neither more nor less than implied guilt on the part of such physician that he criminally is lending his license in the perpetration of a fraud. Against his own state law! Against his own State Board! Against his own profession! Because, by no concept of the imagination can it be otherwise than that an act which requires professional supervision is of itself a professional act. Accordingly, doctors never should have tolerated this flagrant infringement upon our property rights for these many years without vigorous protest. State association sections on anesthesia will go a long way toward re-establishing our just and lawful position before every court in the land.

Still further, sublimely ridiculous as it seems, almost beyond the realm of rational imagination or fanciful speculation, three states, Arizona, Ohio, and Washington actually have exemptions in favor of lay (nurse) anesthesia written into their Medical Practice acts. Ohio may be cited as a typical example. The Ohio Medical Practice Act very broadly and yet in great detail lays down the provisions with which a doctor must comply before he can be licensed to practice medicine in that state, the law even very comprehensively defining a medical practitioner as,

> ". . . one who examines or diagnoses or prescribes, advises, recommends, administers, or dispenses a drug or medicine, appliance, application, operation, or treatment of whatever nature. . . ."

However, the Ohio law-makers apparently did not believe and could not be convinced that an anesthetist examined or diagnosed or prescribed or administered anything at any time; neither, also apparently, did they consider anesthetic agents to be drugs or medicines of any nature whatsoever; because, in the very next paragraph to the above definition, they totally exempt the nurse from the Medical Practice Act, in these words:

> ". . . provided such nurse has taken a prescribed course in anesthesia at a hospital in good standing."

There is description neither of the hospital nor of the "prescribed course." Apparently, the hospital may have twenty beds or two thousand; apparently, too, the "prescribed course" may be one lesson (sic) and administration (2 sics) or one hundred.

A doctor in Ohio, before he can receive a license to practice medicine, among other essentials must: (a), present a certificate of his preliminary qualifications; (b), pay a fee; (c), be examined in anatomy, physiology, chemistry, materia medica, medicine, surgery, et cetera; and (d), he must be of good moral character. The nurse, in so far as she practices medicine in the administering of anesthetic agents, is entirely exempt. What a malodorous mess! Neither fish nor fowl! And, who is responsible? The doctors! The medical profession! In other words, organized medicine was asleep at the switch! It hardly can be conceived that this situation would have obtained had there been an alive and active Section on Anesthesia as an integrated part of the Ohio State Medical Association.

Now, then, you begin to see why my opening paragraphs stressed that only through organized Sections on Anesthesia in our respectively organized state medical societies, on up through the American Medical Association itself can we expect to attain our supreme objective—just and lawful recognition. Only then can organized medicine take up the legislative cudgel in our behalf. The one hundred and sixty thousand physicians of this United States can have what they want. But only if they remain as one in their demands! Otherwise, third-party intermediaries will tell us how, when, and where to practice. They are only too willing to use us as professional guinea-pigs.

Regardless of what you may think or say, you, each one of you, whatever your field of practice or whatever the sphere of your medical activity, is the direct and positive beneficiary, not so much alone of your own ability and of your own strategy, though they count, indeed, but rather of the medical organization efforts which were made by others who preceded you, some, indeed, generations ago. Also, double underscore this fact: The way in which you will practice medicine in your declining years and old age is in direct and absolute ratio to what you, yourself, do right now. You graduated from a medical school into an already fabricated profession, an organization without parallel in the history of the world. Was it of your making? No, it was built by others! It came to you as a priceless heritage, sublimated and refined throughout many struggling generations. What, then, are you going to do with it? It is modeling clay, ready for your hands. Upon your individual efforts in organized medicine, as well as upon your active, coöperative participation in the integrated whole, depends the practice of medicine in the future years. This even you dare not deny. What you then will have is what you have asked for! No more, no less! And, you need not say one word. Your own actions will speak loudly for you.

Throughout this thesis runs a couplet of words of tremendous significance, the words, "organized medicine." He who isolates himself in smug self-complacency from his county, state, and national organizations is derelict indeed to the idealism handed to him so generously and so bounteously by his medical forefathers.

If our present-day system of medical practice, as it has been matured throughout the many centuries, is justifiable and right, and those of us

interested in the future of organized medicine so believe, then the broad, basic principle of professional anesthesia is at once reasonable and sound. Simply stated, it is this: Just as the physicians of any one given community are organized to give adequate and proper care of the peak load of medical and surgical practice occurring in that particular community, high or low, rich or poor, so, too, can those same doctors arrange the anesthetic service in that same community. If they are unwilling or unprepared, then the indictment is not against the problem of anesthesia; rather, it is the medical profession itself as a whole, which is accused. Ignominiously, those doctors dishonor and disown their community obligation. Is there any center in this great commonwealth which we call the United States of America where the actively practicing physicians would be willing to declare or admit or infer that they as individuals or as a group were insufficiently qualified and entirely unprepared to take care of such medical and surgical illness as originates in their own community? Bitter, indeed, in the mouth of that profession then would be the acrid taste of ignoble defeat and of slyly approaching mental decay. No, it can be done!

It is being done in every other phase of medical practice.

It can be done in anesthesia!

THE SURGICAL MANAGEMENT OF PERFORATIVE APPENDICITIS *

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LIEUTENANT COLONEL BUFORD WORD, M.C.
CAPTAIN CLAYTON E. BROCK, M.C.

CAMP SHELBY, MISSISSIPPI

In a previous article[1] we reported sixteen cases of appendicitis with rupture and peritonitis seen at this hospital during the first year of its operation. Since that time 651 additional appendectomies have been performed, in eighteen of which the appendix was found to have ruptured prior to operation, making a total of 1,120 appendectomies performed in this hospital from January 1, 1941, through March 31, 1943, with a total of thirty-four cases of perforation of the appendix in the entire series. At operation each of the cases in the ruptured group was found to have one or more perforations of the appendix with peritonitis in varying degrees of severity. One death occurred in the entire series of 1,120 cases. Although the death was not in the perforated group, it will be described in detail later in the text. We have had the opportunity to observe all of these cases preoperatively and postoperatively, and since the management of all of them has been similar, we feel that a supplemental report is timely.

The measures herein described are in no way automatically prescribed for each and every case. We offer no outline of procedures which, if followed, will take the place of thoughtful, personal attention to each particular patient. However, certain aids in the treatment of complicated cases, any part or all of which have been found invaluable, deserve description. All of our cases have had the advantage of a careful preoperative physical examination, including a detailed history from the time of onset of illness to admission to the hospital, and an evaluation of the patient's general condition as to the surgical risk involved in subjecting each patient to a major surgical procedure. Complete blood pictures are done on all cases prior to operation, and when indicated blood transfusions are given before or during operation.

The low mortality of the complicated cases seen at this hospital since the first appendectomy was done in January, 1941, is due for the most part, we believe, to the management given each particular case and not to any superior skill in surgical technique or to any one procedure following operation. As soon as the operation is completed each patient is placed in the recovery ward to remain under the watchful eyes of a trained staff of officers, nurses, and enlisted personnel. The operating surgeon sees the case at least twice each day, and as indications arise for additional treatment, such treatment is administered with minimum procrastination.

In comparing the last group of cases with the previously reported group, one interesting and encouraging fact has been noted. In our first report of 16 ruptured cases, ten admitted taking one or more purgatives; in the last group of 18 ruptured cases, only two admitted purgation; both were negroes, one a soldier, the other a member of the CCC (which, incidentally, was the kind of pill taken). This seems to indicate that the medical officers here at Camp Shelby are prescribing cathartics in the presence of abdominal pain less often than was their practice previously. The time interval between onset of symptoms and operation has been changed; the average of the first 16 cases was

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* From the Station Hospital, Camp Shelby, Mississippi.

[1] Reed, William C.; Leone, George E., and Word, Buford: A Modern Method of Managing Acute Appendicitis with Rupture and Generalized Peritonitis, *Journal of Ind. St. Med. Assn.*, vol. **35**:307, (June) 1942.

three days, and that of last 18 has been two and one-half days.

All of our cases have been operated upon as soon as the diagnosis was made; any delay being for further diagnostic tests or preparation of the patient for operation by transfusion of blood or blood plasma. Our opinion is expressed by Edward S. Stafford[2] who stated, "Immediate operation is the correct treatment for acute appendicitis in any stage of the disease."

OPERATION

Appendectomy is done through an incision located as nearly as possible over the appendix,[3, 4] as indicated by the point of greatest tenderness, adequate in length to provide the necessary exposure without necessitating traumatic traction, and also to prevent contamination of unsoiled viscera. Gentle removal of the appendix is accomplished by paying careful attention to every step in the operation—complete isolation of the wound edges, delicate handling of the tissues, gentle suction to siphon off exudate, minimal handling of adjacent bowel—at all times being conscious of "the tragedy of converting a localized abscess into generalized peritonitis." The usual incision is a Rockey, McBurney, or transverse oblique (flexion crease incision), any one of which can be extended easily by dividing the fascia of the right rectus muscle and retracting the muscle toward the midline.

We have not hesitated to remove the most inaccessible ruptured appendix, and agree with Auchincloss,[5] "Where there is skill and experience the appendix can practically always be removed, and if done carefully and accurately it is a much better thing to do." The principles of surgical technique practiced in handling these cases has been previously stressed by the authors. The method of handling the appendiceal stump has not affected the result in this series; some have been simply ligated as practiced by many competent surgeons, others have been ligated and inverted, and many of the cases have been handled by inverting the stump without ligation as Ochsner[6] advises. All three methods have been used and no complication has been noted in any of the cases as a result of the procedure used in disposing of the stump. The method probably used most of all has been ligation with inversion. The abdominal wounds have been closed in layers without drainage following proper cleansing of the wounded edges. Of the last 18 cases, twelve of the abdominal wounds healed by primary union, and four developed slight infection, one moderate and one severe infection.

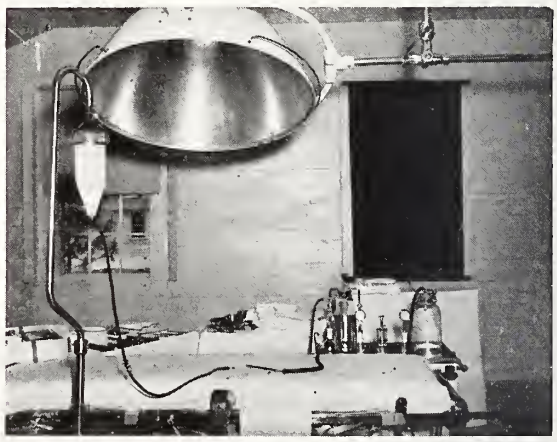
ANESTHESIA

Spinal anesthesia is ideal for the type of case herein described, as the patient returns to the ward fully conscious and can be placed immediately in the oxygen tent, there being no delay for reaction from an inhalation anesthetic. More important, perhaps, is the excellent relaxation of the abdominal musculature during operation and the immobility of the abdominal contents during induction into anesthesia or during the reaction of the patient from the anesthetic. Peritonitis is less likely to be spread with spinal anesthesia than when an anesthetic is used which causes the patient to retch and sometimes vomit during its administration or during the time of reaction from the anesthetic. In more than 2,500 spinal anesthetics administered at this hospital, no serious complications from its use have been noted.

INTRA-ABDOMINAL USE OF THE SULFONAMIDES

We have used chemotherapy locally in all of the ruptured cases seen at this hospital. Following gentle removal of the appendix, aspiration of all pus and removal of all necrotic tissue, sulfanilamide or sulfathiazole has been placed in the peritoneal cavity. At first we used sulfanilamide, later changing to sulfathiazole and then to microcrystals of sulfathiazole.[7] In all cases where it was obvious that peritonitis extended beyond the field of operation no attempt was made to determine the extent of the disease—instead a suspension of sulfathia-

FIGURE I



In the venoclysis apparatus is a 10 per cent suspension of sulfathiazole microcrystals. Note there is no needle on the glass connection tip, which allows free flow of the suspension. Suction machine is seen in background.

[2] Stafford, Edward S.: The Value of Sulfathiazole in the Treatment of Peritonitis and Abscesses of Appendical Origin, *S. G. & O.*, **74**:368, (February 16) 1942.

[3] Guerry, Le Grand, and McCutchen, George T.: The Management of Appendiceal Peritonitis with Special Reference to the Operative Handling of the Localized Abscess, *Ann. Surg.* **115**:229, (February) 1942.

[4] Ladd, William E.: Discussion of Paper of Penberthy, Grover C.; Benson, Clifford D., and Weller, Charles L., Appendicitis in Infants and Children: A Fifty Year Study, *Ann. Surg.* **115**:945, (June) 1942.

[5] Auchincloss, Hugh: Drainage and Wound Closure Technique in Appendicitis Operations, *Ann Surg.* **116**:435, (September) 1942.

[6] Ochsner, Alton, and Lilly, George: The Technique of Appendectomy, *Surgery*, **2**:532((October) 1937.

[7] Chambers, Leslie A.; Harris, T. N.; Schumann, Francis, and Ferguson, L. Kraeer: The Use of Microcrystals of Sulfathiazole in Surgery, *J.A.M.A.*, **119**:324, (May 23) 1942.

zole microcrystals was allowed to flow into the abdomen, 100-200 cc. at a time, and then was aspirated. By this method the number of bacteria which had to be subdued was reduced. Contaminated areas remote from the operative field were thereby "frosted" with the drug without destroying any of nature's defense mechanism in so doing. Five to ten grams of sulfanilamide was then placed in the area from which the appendix was removed and the peritoneum was closed without drainage. The general impression has been that the sulfa drugs inhibit the growth of bacteria and are bacteriostatic. The sulfonamides are capable of holding the invading organisms in check until the natural peritoneal response has developed sufficiently to dispose of the organisms, and as many bacteria are present, remote from the operative field, it is felt desirable to place a bacteriostatic agent in all infected areas with the least destruction of the natural peritoneal defense mechanism. The gravity method appears to be the method of choice (Fig I).

The abdominal wound is then treated as a contaminated wound by irrigating with copious amounts of saline, re-draping the patient with clean linen and supplying fresh gloves and gown for the surgical team. Sulfathiazole is sprinkled in the abdominal wound and closure completed without drainage. We have used sulfanilamide in the abdomen of 22 patients and sulfathiazole in 12 of the thirty-four cases herein reported with no reaction noted from either of the drugs. Sulfathiazole is preferred by some authors[8, 9, 10] for local use in the peritoneal cavity because of its effectiveness against a wide variety of colon-contained organisms, its nonirritating effect on tissue locally and its low solubility, allowing continued local action for four or five days. As the offending bacteria are not killed by the sulfanilamide it seems reasonable for the drug of choice to be the one which produces bacteriostasis for the longer period of time. Both drugs have yielded excellent results. However, regardless of the drug used, it should be complementary to careful, thoughtful surgery.

WANGENSTEEN SUCTION

All of our cases received continuous intragastric decompression following operation. As soon as the patient was returned to the ward a nasal tube was passed and connected to a suction apparatus. Few distended abdomens were noted as decompression was begun before distention developed. Occasionally suction was discontinued too early and had to be re-instituted. In some cases the suction tube was clamped off temporarily for medication and nourishment. The important mechanical feature of the apparatus is to select a tube large enough so that particles of gastric content will not occlude its lumen. It is obligatory to train the personnel of the recovery ward to recognize and remedy an occluded suction tube. The benefit a patient receives from the prophylactic use of such a simple procedure is general knowledge often unheeded.

BLOOD AND BLOOD PLASMA

Blood transfusions have been given frequently during the recovery period. Some patients received as many as five or six transfusions. Small repeated transfusions of 250 to 300 cc. of whole blood or a like amount of plasma have been employed. Gatch[11] was among the first to call attention to the biochemical similarity of the blood of a patient suffering with a widespread peritonitis and one with an extensive cutaneous burn. There is an escape of blood protein into the tissue in both cases, resulting in a lowered blood protein. Whole blood and blood plasma correct this condition, at the same time giving nourishment to the patient. Shearburn[12] has shown that serum protein concentration was effectively increased by small plasma transfusions given once or twice daily, and Ravitch and Blalock[13] have advised that plasma may be used when plasma is needed or in conditions of lowered serum protein where there has been no blood loss. Either whole blood or plasma is immediately available to the soldier patient.

OXYGEN

Oxygen has been recommended by many in the treatment of abdominal distention since Fine[14] and his associates first reported their experimental work eight years ago. It is well known from Fine's work that oxygen is required in high concentration to be effective in reducing abdominal distention and that oxygen supplied by means of a tent is seldom, if ever, properly concentrated. Nevertheless, all of the cases have done well, and when the tent is removed the sicker patients ask to have the tent replaced. Oxygen prevents anoxemia and helps to reduce gaseous distention of the intestinal tract. The fact that none of the cases treated with oxygen developed any pulmonary complications may be of some interest.

SYSTEMIC CHEMOTHERAPY

The initial dose of sulfonamide was given intra-abdominally at the time of operation and was fol-

[8] Osgood, Edwin E.: Principles Which Should Govern the Local Use of the Sulfonamide Drugs, *S. G. & O.*, **75**:21, (July) 1942.

[9] Epps, C. H.; Ley, E. B., and Howard, R. M.: Treatment of Peritonitis, *S. G. & O.*, **74**:176, (February) 1942.

[10] Epps, C. H.; Ley, E. B., and Howard, R. M.: The Local and Intraperitoneal Use of Sulfonamide Compounds, *S. G. & O.*, **76**:247, (February) 1943.

[11] Gatch, W. D.: Acute Perforated Appendicitis in Childhood, *S. G. & O.*, **73**:508, (December) 1941.

[12] Shearburn, Edwin W.: The Effect of Plasma Transfusions Upon the Serum Proteins and Blood Volume of Dogs Rendered Hypoproteinemic by Diet, *S. G. & O.*, **74**:343, (February 16) 1942.

[13] Ravitch, Mark M., and Blalock, Alfred: An Evaluation of Blood and Blood Substitutes, *S. G. & O.*, **74**:348, (February 16) 1943.

[14] Fine, Jacob; Sears, J. B., and Banks, B. M.: The Effect of Oxygen Inhalation on Gaseous Distention of the Stomach and Small Intestine, *Am. Journal of Digestive Diseases*, **2**:361, (August) 1935.

lowed by systemic administration of the drug. The blood level of the drug was determined at frequent intervals to prevent an excessive concentration from occurring at any one time. The optimum concentration of 8-10 mgs. per 100 cc. was maintained until the temperature dropped to normal. We have found that the blood level of the drug was best maintained at optimum level when administered by hypodermoclysis. In some instances where there was no distention, and after intragastric suction had been discontinued, the drug was given by mouth. Only two cases reacted locally when the drug was given by hypodermoclysis, and then only by the formation of an indurated area which subsided without sloughing. None of our cases developed a toxic reaction to the drug as noted by fever, rash, anemia, leukopenia, agranulocytosis, renal complications, jaundice, hepatitis, or conjunctivitis. The two most common signs of the high blood level of the drug are cyanosis and a diminished alertness on the part of the patient. The patient described this diminished alertness as "My memory is clouded" or "My mind seems foggy."

FLUIDS AND VITAMINS

Naturally, with proper continuous intragastric suction any fluid taken by mouth would not be absorbed and, therefore, necessitates the administration of the required fluid intake by hypodermoclysis or venoclysis. Dr. Frederick A. Coller of Michigan has recommended that patients who receive no fluid by mouth should receive 1500 cc., plus the amount of urine voided, the amount of fluid lost through intragastric suction, and the amount of fluid lost through perspiration. Warren H. Cole[15] has advised 3000 cc. of fluid intake in addition to fluid lost by Wangensteen suction. This amount, Dr. Cole states, is sufficient to avoid renal complications which may be caused by blockage of the ureters from sulfa crystals. Usually 3000 to 4000 cc. is sufficient to make the patient comfortable and keep him in proper water balance.

There have been few indications for vitamin therapy as all of our cases have been young, vigorous, healthy military patients whose diets have been sufficient to prevent avitaminosis. However, any cases which required prolonged intravenous therapy are given nicotinic acid and vitamin B in adequate amounts.

COMMENT

In this hospital, over a two-year period, we have operated upon 34 cases of acute appendicitis with rupture and peritonitis of a greater or lesser extent without a fatality. In a like period of time 1120 appendectomies have been performed with one death. Although the fatality occurred in an unruptured case, the appendix was gangrenous. Partial intestinal obstruction was present incident thereto, and it was obvious at operation that peritoneal contamination had occurred. Appreciating the seriousness of the pathology present at the time of operation, the treatment outlined above was rendered in minute detail. A brief description of the case follows:

Case Report

Pvt. F. F. B., hospital register No. 34,480, was admitted to this hospital June 28, 1942, with vague abdominal pain and generalized abdominal tenderness. The patient was admitted to the medical service for study. He was seen in surgical consultation on the third hospital day, at which time moderate distention was present with generalized abdominal tenderness and maximum point of tenderness midway between umbilicus and symphysis. The patient was explored and phlegmatous appendix located in midline on pelvic brim. Partial obstruction of the small bowel was present due to adhesions about the appendix and a low grade peritonitis was in progress about the area. The appendix was removed intact, peritoneal cavity was irrigated with microcrystals of sulfathiazole, and the wound closed without drainage following thorough cleansing.

Blood, oxygen, continuous intragastric suction, systemic chemotherapy, and fluids by vein were properly given during the postoperative course. The patient responded favorably to treatment. Although treated as a critically ill case, he was not considered as such. The wound was healing by primary union, distention had diminished, pulse rate had declined, and patient had begun to take nourishment by mouth on the seventh postoperative day. The patient's favorable response to treatment gave the impression that he was completely out of danger.

The patient washed his face on the morning of the eighth postoperative day and went to the bathroom without the knowledge of the nurse. He returned to his bed, gasping for breath, and died in five minutes.

Postmortem examination showed no evidence of pulmonary embolism, cardiac disease, or cerebral lesion. The operative wound showed no evidence of infection. The stump of the appendix was well healed. The peritonitis seen at operation had greatly diminished. In fact, the bowel was, for the most part, smooth and shiny. The small intestine remained moderately distended. Autopsy failed to furnish an adequate explanation for this patient's sudden death.

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[15] Walter, Leroy, and Cole, Warren H.: The Intraperitoneal Administration of Sulfadiazine, *S. G. & O.* **76**:524, (May) 1943.

SUMMARY

A practical method of managing cases of acute appendicitis with rupture and complications incident thereto has proved successful in handling thirty-four such cases at this hospital. Careful appendectomy, together with sulfonamides intraperitoneally, continuous intragastric suction, small repeated transfusions of whole blood and plasma, oxygen continuously, chemotherapy systemically, and intravenous glucose and saline have all been valuable aids in the full recovery of these patients.

CONCLUSION

It is our belief that the low mortality in this series is not due to any new method in surgical technique, but to the careful, thoughtful management of each case.

THE DETERMINATION OF THE PROGNOSIS IN GLOMERULONEPHRITIS BY CLINICAL METHODS

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MUNCIE

The classification of Bright's disease based on pathogenesis, as advocated by Volhard and Fahr and modified by Van Slyke,[1] Christian,[2] Addis[3, 4] and others[5, 6, 7] embraces three chief disorders, namely: (1) glomerulonephritis, (2) the degenerative nephropathies or "nephrosis," and (3) renal arteriosclerosis. These different types of Bright's disease may be identified clinically by the presence or absence of certain of five groups of manifestations of the disease: (1) urinary, (2) nitrogen retention, (3) edematous, (4) hypertensive, and (5) uremic.[7]

Glomerulonephritis may be looked upon as the only true inflammatory lesion among those classified as Bright's disease. It is of indeterminate etiology but is associated in many instances with a streptococcal infection of the upper respiratory tract and is characterized by: (1) proteinuria, (2) hematuria, and (3) casts in the urine. In addition to these three signs of renal dysfunction there may be edema, hypertension and nitrogen retention or uremia. In the majority of instances five phases of the disease may be noted: (1) a subclinical phase, (2) the acute phase, (3) a latent or transitional phase, (4) the chronic phase, and (5) the terminal phase. Following an insidious onset and the acute phase there is a period of quiescence during which complete healing may occur but which frequently progresses into the chronic phase before it is realized that the kidneys have become irreparably damaged. Again, the terminal phase may follow swiftly on the heels of the acute phase.

When it is recalled that as a cause of death chronic nephritis is superseded only by heart disease, cancer and cerebral hemorrhage, and that every patient with an acute renal inflammation is a candidate for chronic and terminal nephritis, the practical importance of an evaluation of the extent of the lesion as a guide in the manner and continuation of treatment becomes apparent. The usual blood pressure and non-protein nitrogen determiations may lead one to conclude that the renal lesions are healing satisfactorily, while more exhaustive study may prove that this is decidedly not the case. The tempo of renal functional impairment is the all-important factor in determining the life expectancy of the patient with glomerulonephritis. No one test is a reliable index of the gravity of the disease, its course and prognosis, but results obtained from a combination of several measures performed at frequent intervals may be used as a fairly accurate guide. The following is a summary of the opinions of a majority of clinicians whose experience with glomerulonephritis have been recorded in the extensive literature.

Routine Urinalysis

The urinary volume is usually decreased in the early stage and while the disease is progressing. In very severe cases anuria occurs, and this is always of ominous significance. The volume is increased for a short period in the chronic form to compensate for the lost power of concentration,

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* From the Pathology Laboratories of Ball Memorial Hospital, Muncie, Indiana.

[1] Van Slyke, D. D.; Stillman, E.; Möller, E.; Ehrich, W.; McIntosh, J. F.; Leiter, L.; MacKay, E. M.; Hannon, R. R.; Moore, N. S., and Johnston, C.: Observations on the Courses of Different Types of Bright's Disease and the Resultant Changes in Renal Anatomy, *Medicine*, **9**:257, (Sept.) 1930.

[2] Christian, H. A.: Types of Nephritis and their Management, *J.A.M.A.*, **102**:169, (Jan. 20) 1934.

[3] Addis, T: A Clinical Classification of Bright's Disease, *J.A.M.A.*, **85**:163, (July 18) 1925.

[4] Addis, T., and Oliver, J.: *The Renal Lesions in Bright's Disease*, New York, Paul B. Hoeber, Inc., 1931.

[5] Bell, E. T.: The Pathology and Pathogenesis of Clinical Acute Nephritis, *Am. J. Path.*, **13**:497, (July) 1937.

[6] Boyd, W.: *The Pathology of Internal Diseases*, Second Edition, Philadelphia, Lea and Febiger, 1935.

[7] Murphy, F. D.: Syndromes of Chronic Nephritis and their Corresponding Morphologic Changes, *Internat. Clin.*, **2**:45, (June) 1929

and later decreases because of approaching renal failure.

The diagnosis of glomerulonephritis is untenable in the continued absence of proteinuria. The amount varies but is not indicative of the degree of glomerular damage, nor is it of prognostic significance since the capillaries of the most severely damaged glomeruli are closed and do not transmit albumin. As impairment of renal function progresses proteinuria usually diminishes, possibly because of a diminution in the number of functioning renal units.[3] Proteinuria very frequently is the last manifestation to disappear in the process of healing, but it is generally conceded that the longer it persists the greater are the chances of the disease becoming a chronic one.

In the absence of gross or microscopic hematuria the diagnosis of glomerulonephritis should be held in doubt. The degree of hematuria often fluctuates and may be considered a rough index of the severity of the acute phase. Usually pronounced hematuria is not persistent but diminishes after a few days or, at most, a few weeks. When marked, and when it persists, microscopic hematuria implies a fatal ending often in a matter of months or one to two years. During the chronic stage hematuria usually decreases and may become difficult to detect except by the Addis quantitative method of counting. During acute exacerbations the urinary red cell count again rises.

Urinary casts are practically always present in glomerulonephritis, and their number parallels roughly the severity of the lesion. They are more numerous in the chronic phase but decrease in the late stage. Casts of greater diameter than usual and of a waxy consistency are said to indicate a grave prognosis.

The specific gravity is either normal or elevated in the acute stage. A low and fixed specific gravity (1.008 to 1.012) is suggestive of a chronic lesion. Loss of the ability of the kidney to excrete a concentrated urine is one of the best indications of renal impairment. When clinical nephritis appears suddenly and the specific gravity is low and fixed, the diagnosis is probably not acute glomerulonephritis but the chronic disease with an acute exacerbation.[8] In this phase the patient usually compensates for the damaged glomeruli and tubules by an increased total urinary output, nocturnal polyuria and consequent polydipsia.

Blood Examinations

Varying degrees of secondary anemia may develop when the acute phase extends over a period of many weeks, but in general the presence of anemia should arouse suspicion that the process is a chronic one with an acute exacerbation. Brown and Roth[9] consider a severe anemia in the chronic phase to be the result of bone marrow injury and to indicate a grave prognosis. The white cell count is frequently elevated in the acute stage, but such changes are not necessarily proportionate to the severity of the renal involvement. A polymorphonuclear leukocytosis is an inconstant finding in the terminal stage.

A plasma protein deficit is the rule in a severe case of glomerulonephritis. Many authorities believe that if the serum albumin is low in the initial acute phase the disease is apt to pass quickly into the chronic form, and that the probability of recovery is less than when the value is retained nearer the normal. The low value for albumin is a factor in causing the edema of the chronic phase. Later, during the terminal stage, the serum albumin varies with extreme rapidity, but there is a tendency for the value to rise from its former low level.[10] Peters and Van Slyke[11] noted a terminal restoration of the plasma protein level to the normal in 50 per cent of their cases.

In glomerulonephritis elevation of the blood non-protein nitrogen, urea nitrogen, uric acid and creatinine values is variable and frequently transient. In the majority of cases some elevation of the blood non-protein nitrogen occurs during the early part of the disease, and such elevations, if temporary, imply no evil prognosis. The absolute level of the blood non-protein nitrogen at any one time is less significant than the direction in which it is changing. Thus, a non-protein nitrogen value which is elevated and continues to rise from week to week indicates a rapidly failing kidney. Nitrogen retention is said to be present when the non-protein nitrogen is 40 milligrams per 100 cc. of blood or higher. It develops swiftly in the presence of anuria and oliguria. The degree of nitrogen retention has always been looked upon as an index of the severity of the disease. Definite retention, however, occurs only when renal damage is far advanced unless cardiac decompensation, an acute infectious process or other complications are present. Experimentally, it is necessary to destroy approximately three-fourths of the total kidney substance before nitrogen retention occurs.[12] The fact that the chemical constitution of the blood is not appreciably altered, therefore, does not preclude considerable renal damage. Uric acid is less soluble and is less readily excreted by the kidney than the other non-protein nitrogenous constituents. Any interference with kidney function, therefore, is mirrored first in an elevation of the blood uric

[8] Murphy, F. D., and Rastetter, J. W.: Acute Glomerulonephritis with Special Reference to the Course and Prognosis, *J.A.M.A.*, **111**:668, (Aug. 20) 1938.

[9] Brown, G. E., and Roth, G. M.: Prognostic Value of Anemia in Chronic Glomerular Nephritis, *J.A.M.A.*, **81**: 1948, (Dec. 8) 1923.

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acid level. Since creatinine is the most readily excreted constituent, an elevation of the blood creatinine level occurs only when renal reserve is taxed to its utmost and is the surest sign of a serious prognosis. Small increases in the blood creatinine, up to 3 to 5 milligrams per cent, are usually of unfavorable import, and in the presence of amounts over 5 milligrams per cent a fatal outcome may be expected.

Acidosis is a common but not invariable finding in cases with marked reduction in renal function. This state of alkali deficit frequently precedes death by many months and is presumably due to the kidney's impaired ability to form ammonium salts and to an accumulation in the blood of phosphoric and sulfuric acids which normally are excreted.[13] Acidosis may be determined by the carbon dioxide combining power of the blood or by the amount of inorganic serum phosphate. The hyperphosphatemia parallels the increase in blood creatinine rather closely, and a concentration of more than 8 milligrams of inorganic phosphate per 100 cc. of serum in an adult glomerulonephritic is said to forecast an early fatal termination.[11]

The blood sedimentation rate is a valuable adjunct in following the progress of a case of glomerulonephritis. The individual reading is of significance only in the light of repeated sedimentation rate determinations. The rate falls when the renal lesion is becoming quiescent and is more rapid when the lesion is progressing.

Blood Pressure Measurement

An elevation of the blood pressure is not essential to a diagnosis of glomerulonephritis. Hypertension is frequently absent or only transitory in mild cases.[14] Most often it is moderate and runs parallel to the other signs of the disease. However, persistent hypertension, especially in the presence of proteinuria, indicates a process that is very likely to become chronic, and a rising blood pressure, even if other findings are more favorable, is an ominous prognostic sign. Numerous investigators have found that with the appearance of hypertensive retinal changes the average life expectancy is slightly more than two years.

Renal Function Tests

It should be a matter of greatest concern to know the functional ability of the kidneys during the various phases of glomerulonephritis, since the prognosis and type of specific therapy depend upon the degree of renal impairment. The evaluation of the state of function of any organ by clinical methods is valueless unless the results are judiciously interpreted. A knowledge of the limitations of the test in use is essential, as well as its variables, when it is applied to a particular pathological state. It should not be assumed that the anatomic and functional states of the kidney always parallel one another. There are cases on record in which renal functional tests had been practically normal but in which marked tissue changes were found at autopsy. Also, the cardiovascular and autonomic nervous systems sometimes furnish adequate compensation for a functional defect of the kidneys. It is essential to remember that the trend of repeated functional estimations over a period of time, rather than the single test, should constitute the guide in managing the case. Of the many procedures for the detection of damaged renal function four are especially instructive.

The most reliable of the commonly employed tests is the urea clearance test in which the efficiency of the kidney is expressed as the volume of blood cleared by the kidney of its urea constituent in a minute. The mean standard clearance is 54 cc., and the average maximum clearance is 75 cc. The test may disclose marked reduction in function when all the other procedures have indicated the function to be "normal." Van Slyke and his coworkers[11] found that a normal urea clearance during the first months of the disease did not justify either a good or bad prognosis. The essential for a good prognosis during the acute stage was a consistent rise of the urea clearance back to normal within four months of the acute onset. If no definite tendency toward a restoration occurred in four months, a downward course into the chronic and terminal stages followed. In the chronic stage the urea clearance was always found to be less than 60 per cent of normal and usually less than 40 per cent. After it had fallen permanently below 20 per cent of normal all patients died within two years.

Another test, the blood urea ratio, advocated by Mosenthal and Bruger[15] and considered by them to be equally as sensitive an index of early kidney damage as the urea clearance test, employs the following formula:

$$\frac{\text{Blood urea nitrogen} \times 100}{\text{Blood non-protein nitrogen}} = \text{Urea ratio}$$

It has the advantage over other tests in that it requires only a single blood sample. The average normal urea ratio is 44 per cent or less, with an increased ratio occurring in renal impairment.

The dye excretion test has been the most commonly used test, perhaps because it is easily performed. Phenolsulphonephthalein, the usual dye, is thought to be excreted almost entirely by the tubular epithelium. Functional disturbances of the tubules may, therefore, be measured with fair accuracy by this method, but a considerable degree of glomerular dysfunction may exist in the presence

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of normal dye excretion. Unless the fractional or fifteen-minute excretion method is employed, the test is invalid in the early stages of nephritis.[16, 17] Normal kidneys promptly excrete 50 to 60 per cent of the dye in the first two fifteen-minute specimens, and the total excretion usually is 75 per cent or over. In the presence of actual renal damage the rate of excretion is slower and more uniform in all the samples and totals 40 per cent or less. A low output, however, indicates merely the inability of the kidney to excrete the dye at a given moment and conveys no information as to what the kidney could be made to do. It is to be borne in mind that the amount of dye excreted may be reduced by an intercurrent disturbance of renal circulation such as chronic passive congestion. Coexistent liver disease may prevent the liver from taking up its customary 20 to 25 per cent of dye and may result in a larger output in the urine.[18] When renal function is failing, the urea clearance test indicates the fact much earlier than the dye test, while in the healing case the dye excretion tends to return to normal before the urea clearance. In general, when the signs and symptoms of glomerulonephritis are present and the dye test is reported as being normal it is best not to assume that the kidneys are intact.

The concentration-dilution test, originally devised by Volhard, is based on the principle that the diseased kidneys lose their ability to produce a very concentrated or a very dilute urine. The evidence obtained from the concentration and dilution tests is likely to be obscured when both tests are performed on the same day because of the tendency of the diseased kidney to retain water during the first portion of the test and to continue excreting water during the remainder of the day. An interval of twenty-four hours should, therefore, be allowed to elapse between the two portions. Any method which considers this factor is useful. When the maximum specific gravity is less than 1.029 in all specimens of the concentration test, impairment of renal function is present, and the more severe the renal damage the lower the specific gravity remains. All specific gravity tests are, of course, not reliable during active diuresis or in the presence of loosely held cardiac or nephritic edema. Among all the tests of renal function the concentration test is the only one which requires the kidneys to perform under strain. Since the lesions of early nephritis are thought to be of a patchy nature a foreign dye and normal catabolic waste products, such as urea, may conceivably be eliminated by the intact portions of the renal parenchyma in fairly normal quantity. The same kidneys, when required by the concentration test to demonstrate their maximum function, will reveal their impaired condition. The concentration test, therefore, is looked upon as a sensitive test of early renal dysfunction, and since with improvement in renal function it tends to lag behind the other tests, it is important in establishing when recovery is complete.

The dilution test is to be performed independently of the concentration test. Here the damaged kidneys are able to excrete only a small portion of the required 1200 to 1500 cc. of water in three hours and can only maintain a relatively high specific gravity, that is, at approximately 1.010 or 1.012, while normal kidneys excrete almost the entire amount in three hours and dilute the urine to 1.002 to 1.005. Since the ability to dilute the urine persists longer than the ability to concentrate urine, the results of the dilution test are less reliable than those of the concentration test and rarely yield information not already afforded by the clinical signs and symptoms and other tests of function.

SUMMARY

Rational management of Bright's disease presupposes that definite information be available not only concerning the type and variety of disease but also with reference to its phases, course and prognosis. The life expectancy in glomerulonephritis depends upon the rate at which renal function is compromised. Those features of the urinary, hematologic and renal functional tests which indicate the course and probable outcome of glomerulonephritis have been enumerated. Such clinical procedures should be carefully selected and performed at intervals. They are of aid only when their aggregate results are evaluated in series and with due regard for the patient's total constitutional state.

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ABSTRACT: PNEUMOCOCCIC MENINGITIS

The mortality rate in pneumococcic meningitis is not so high as some authors have suggested, Horace L. Hodes, M.D.; Margaret H. D. Smith, M.D., and Howard I. Ickes, M.D., Baltimore, declare in *The Journal of the American Medical Association* for April 24. The sulfonamides bring about an encouraging proportion of cures, except in patients under 2 years of age, they say. Before the introduction of sulfonamide treatment the mortality rate was nearly 99 per cent.

HEAD INJURIES FOLLOWED BY POST-CONCUSSIONAL SYNDROME

LOWELL W. PAINTER, M.D.
WINCHESTER

In discussing concussion we must first have a definition. Concussion is a rather vague term which usually means some type of head injury, followed by a loss of consciousness or at least the presence of confusion.

For the purpose of this paper we shall consider concussion as being a condition that may result from a very mild to a very severe blow in which there may or may not be a fracture of the skull, and in which the patient may be confused, semi-conscious or even unconscious. Such a definition would give us a wide range of conditions and, hence, a large number of cases. Many will be followed by no particular after-effects, but a certain proportion will be followed by a syndrome or a clinical picture that may be severe enough to be disabling to the patient.

Care must be taken in making a definite diagnosis of a post-concussional syndrome to rule out the psychic cases and the malingerers. There is always a question as to whether we have a physiological or a psychic condition.

This paper is a preliminary report on the treatment of such cases. It is given in order to stimulate discussion and attempt to find an adequate treatment for this very disabling condition. This article, and the treatment outlined, is based on an article in the July 11, 1942, *Journal of the American Medical Association*, by Dr. J. Y. Malone, which is in itself a preliminary report.

The pathology, presuming that we haven't the neurotic or malingering pictures, is not very clear. Investigators of this condition vary widely in their opinions, and owing to the fact that these people rarely die, postmorten examinations are almost never made so that an adequate pathological picture can be established.

Penfield believes that these symptoms are due to dural adhesions, and he has found thin layers of organized blood adherent to the arachnoid and dura. As proof of this he explains that during surgery pain can be caused by pressure on the underneath side, such as cause the same headaches that we find in post-concussional syndrome. Courville suggests that the mental changes often seen as part of the condition are primarily vasomotor phenomena. Such vascular pathophysiological changes play an important, if not a dominant role, in the symptom complex. Several authors have pointed out the possibility of a marked water balance disturbance in these conditions. Whether this is primary or secondary has not been definitely shown.

Diagnosis

First, an important point must be made—that the severity of the blow is not the major consideration because some seemingly mild blows will cause more severe post-concussional symptoms than the severe blows. In fact, a fracture of the skull attended by considerable damage may not be followed by these complications.

The following symptoms are present in part or in whole in most of these cases:

1. Headaches, mild to severe, often made worse by stooping or by work or by nervous strain.
2. Dizziness, for which caloric tests may be used to evaluate the condition.
3. Tinnitus.
4. Nystagmus.
5. Vision changes. This may not be very marked, running from minor refractive changes to diplopia.
6. The patient may show emotional instability and personality changes which may be mild to marked. He may have facial contortions and show a desire to avoid crowds or new situations.
7. There is a loss of memory of a type that involves recent plans for activities, rather than an actual loss of memory. There is a loss of incentive or ambition, and there may be an impairment in hearing.

We must differentiate, as I have said before, in compensation cases; malingerers; neurotics; the constitutional inadequates; and organic brain conditions, such as tumors, cysts, marked lacerations, abcesses, et cetera.

Therapy

First, we must restrict fluids to the point of near dehydration. It may even be advisable to use ammonium chloride, 15 grams three times a day, to help correct any water imbalance. Prostigmine bromide, 15 mg., is given three times a day by mouth, and 1 cc. of prostigmine methyl sulfate 1:2000 is given intramuscularly biweekly.

The action of prostigmine, which is a synthetic, autonomic preparation similar to physostigmine, but lacking its disadvantages, seems to inhibit the action of cholinesterase on acetylcholine, which is liberated at the myoneural junction and which is believed to act as the transmitting agent for nervous impulses as it passes from nerve fibers to the effector organs.

Acetylcholine is a powerful vasodilator as is also the prostigmine methyl sulfate which acts on the arterial system rather than arterioles. It is thought that prostigmine acts on the labyrinthine and cranial vessels. Wolff concluded recently that the best evidence of cause of intracranial pain at present is that it is an alteration in the tonus of the

involved arteries, and of the meningeal arteries in particular. However, much is yet to be learned about these conditions, from the pathological, physiological and the chemical action of the condition and the drug.

In treating these patients in this manner we must know when we are getting results and how soon to conclude treatment. The patients' symptoms will be a guide. An examination should be made to find whether there still remains nystagmus and if the caloric tests are positive. The patient should be instructed to force fluids for twenty-four hours and a re-examination should be made for the presence of nystagmus, positive caloric tests and the return of symptoms as outlined above.

If the patient is made worse by the forcing of fluids and the symptoms have up to that time been relieved by the treatment, then therapy should be continued for another period of time and the test repeated.

If after a reasonable length of time, which may require as long as three months, no results are obtained, then we may have to resort to surgery, which has been the standby of the profession for this condition until this treatment was suggested. This therapy is not expected to be efficacious in all cases, for undoubtedly there are many patients who will require surgery before any results can be obtained. However, we believe that there is a relatively large number that can be improved or cured by the treatment, and that it should be tried before the more serious and dangerous surgical procedures are instituted.

The following two patients had been treated as outlined above for a relatively short time when this paper was written, and both have shown marked improvement in their condition, but they are still under treatment and will require a considerable period of treatment before definite conclusions can be reached and before they can be considered as being cured.

Case Histories

Case 1—Mrs. B., age 33. Auto accident, February, 1942. Fracture of right zygoma and maxilla, extending from orbit to nasal bone on the inside and through the zygoma to the outer border of the right orbit. Right antrum filled with blood. Not much displacement of fragments. Patient was unconscious for several hours, and was disoriented for a few days. In July of 1942 symptoms reached climax. Patient had nausea, headaches of very severe type, dizziness, loss of memory and changed personality. Nystagmus was marked. Diagnosis substantiated by consultants who recommended rest and sedatives.

Treatment started August 5, and continued until September 2, 1942. Patient went to a convention and did not resume treatment. Symptoms were markedly alleviated.

There was a gradual return of symptoms until patient decided she had better resume treatment. Treatment resumed March 29, 1943. Under treatment at present patient says she feels better than at any time since the accident. Nystagmus had returned, was moderate, now is practically gone.

Her memory is again excellent and she is able to think straight and organize her work well.

She is occasionally dizzy and nauseated for about three of four hours after administration of progstigmine methyl sulfate.

Case 2—Mr. R., age 34. February, 1939, he received a stellate fracture of the skull, involving right occipitoparietal area. Patient was unconscious several days, and was mentally confused several months (in bed). He has shown gradual improvement for about one and one-half years. Residual symptoms:

1. Changed personality.
2. Attacks of tinnitus and vertigo.
3. Nystagmus marked.
4. Facial grimaces.
5. Relative loss of memory.
6. Hesitancy of speech.
7. Marked headaches.
8. Loss of ambition, initiative and interest.
9. Marked lack of poise.
10. Attacks of type of mental and nervous collapse under strain of meeting new people or situations.
11. Attacks of sweating.

He was inducted into the Army on November 17, 1942. Sent to a camp in Texas, in Signal Battalion, November 20, 1942. Same day reported to hospital. Was under observation until discharge February 27, 1943. Treatment started March 8. Ammonium chloride added and is being continued.

At present patient gets sleepy two hours following administration of prostigmine methyl sulfate. He is more like himself than at any time since the accident; is less nervous, desires company, is apparently relaxed, and has fewer facial grimaces. He sleeps well, enjoys work, and is for the most part not dizzy. He has had fewer mental and nervous collapses. Nystagmus is present to a very mild degree. He has no headaches. He clerks in a store without difficulty, except for drowsiness after shots.

Both of the above patients reported almost a total loss of the sense of smell following the accidents, but after having been under treatment for a few weeks they noticed a partial return of their ability to distinguish odors.

Conclusion

This is a preliminary report. Although this treatment will in many instances not eliminate the use of surgical procedures, it should be tried for it has been found to be quite effective in relieving the symptoms of post-concussional syndrome.

ABSORPTION OF SULFANILAMIDE FROM BURNED SURFACES

MELL B. WELBORN, M.D.*
EVANSVILLE

The local application of the sulfonamides to burned surfaces and other denuded areas is increasing in frequency. A study of their rate of absorption and of toxic effects, becomes, therefore, increasingly important. The present communication deals with a brief review of the literature on this subject as it relates to the treatment of burns, and the report of a case in which toxic blood levels of sulfanilamide were noted from the local application of sulfanilamide to a comparatively small burned area.

The sulfonamides have been locally applied to compound wounds and burns for two or three years, and as a result of the war are undoubtedly being more widely used in this manner than heretofore. Many writers have referred to the absorption of these drugs when used in this manner, but there are only a few who report actual blood levels and give specific case reports. In 1941, Crile stated[1] that "Apparently there is little or no danger of over-absorption of the sulfonamide drugs when they are implanted in wounds or sprinkled upon raw surfaces." This must have been the prevailing opinion at that time, and was, no doubt, partly influenced by the confusion existing as to whether or not drugs and toxic products could be absorbed from burned areas.

In 1942, Welborn[2] reported on the local application of sulfanilamide in the treatment of burns, but made no mention of toxic effects. Later that year Kitlowski[3] commented on the use of the sulfonamides in various combinations, but made no mention of their rate of absorption.

Apparently the first detailed report made on the absorption of sulfanilamide from burned surfaces was made by Hooker and Lam.[4] They reported several cases, one of whom developed a blood sulfanilamide level of 33 mgs., and who became cyanotic and confused. Gordon and Bowers[5] reported in 1942 that one of their cases with a 22 per cent surface area cutaneous burn developed toxic symptoms and a blood sulfanilamide level of 59 mgs. These patients improved rapidly as soon as the drug was discontinued. Penberthy,[6] in commenting on the local application of the sulfonamides to burned areas, stated that "We believe this form of therapy is not without certain danger. The rate of absorption is not controlled and high sulfonamide blood levels may occur, particularly in patients with a diminished urinary output." Rhoads[7] and others[8] warn that excessive absorption of these drugs from burned areas may occur, but like Penberthy cite no specific cases. It would seem that there have been a few cases of toxic blood levels observed by several authors, but apparently none of them were serious enough to cause grave concern for the life of the patient. In the case about to be reported, alarming symptoms were noted.

CASE REPORT

Mrs. E. E., aged 49, white, a widow, was burned at 1:00 P.M. November 30, 1942, by having hot coffee accidently spilled on her back. She presented herself for treatment shortly thereafter, did not seem to be in excessive pain, and was rational and co-operative. She had never been robust, but had never been seriously ill.

Examination revealed a middle-aged white female in moderate pain with first and second degree scalds of the lumbosacral area, estimated by Berkow's method as 8 per cent of the total body surface. Under morphine analgesia the burned area was washed with soap and water, all blebs excised, and 5 grams of sulfanilamide granules sprinkled over its surface. The patient was not permitted to go home, although we considered advising her to do so. She was placed on her abdomen underneath a light cradle, and sulfanilamide was dusted on the burned area once or twice more, but the actual amount used is unknown. The following day, December 1, 1942, she was irrational, but due to her emotional status she was thought to be psychoneurotic. On the morning of December 2 she was irrational and confused, and appeared to be gravely ill. The lips and nail beds were cyanotic, the pulse rate was 120, and her general appearance suggested impending peripheral vascular collapse. The blood pressure, however, was 115 systolic, 70 diastolic. There were minor convulsive movements of the face and skeletal muscle twitching. Stimula-

* From the Surgical Service of the Welborn Walker Hospital, Evansville, Indiana.

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tion produced spasm of the masseter muscles, with trismus and mild opisthotonos. The burned area appeared to be in good condition, was dry, and lightly covered with sulfanilamide crystals.

Laboratory work at this time, about forty hours after the burn, revealed a hemoglobin of 120 per cent (Sahli), red cells 6,050,000, white cells 32,600, polymorphonuclear leukocytes 96, lymphocytes 3, and transitional cells of 1 per cent. The hematocrit reading was 45. The blood sugar was 198 mgs., non-protein nitrogen 47.5 mgs., calcium 18.2 mgs., and blood sulfanilamide 39 mgs. per cent. The carbon dioxide combining power of the blood was not determined. The Kahn and Mazzini tests were negative. The urine on December 1 was straw-colored, alkaline in reaction, specific gravity of 1.021, with no albumin or sugar. The sediment showed many urate crystals.

She was given blood plasma and some saline with glucose, and the following day, December 3, 1942, she was much improved. On this date the blood sulfanilamide level was 13.4 mgs., the hemoglobin 92, red cell count 4,080,000, and white cell count 27,700. She continued to improve rapidly, and on December 11 the blood sulfanilamide was reported as 0. She was discharged from the hospital on December 19, the twentieth day following her illness, and at that time the burned area was completely epithelialized, although it appeared to be tender.

This patient was seen from time to time until April, 1943. She complained of considerable tenderness and of a burning sensation in the injured area, but otherwise appeared to be well.

COMMENT

This case report serves to demonstrate that sulfanilamide can be rapidly absorbed from burned areas, even though they may be comparatively small. The symptoms were probably exaggerated by the dehydration and hemoconcentration noted, but it should be kept in mind that these factors are usually noted with burns, although not commonly associated with burns of such a minor nature.

The tetanic symptoms noted may have been secondary to an alkalosis induced by hyperpnea. The fact that the urine was alkaline in reaction tends to support this assumption. The blood calcium level was elevated, possibly as a result of hemoconcentration. Tetany can occur under such circumstances as a result of the failure of calcium to ionize in the presence of an alkalosis. This patient was of a psychoneurotic nature and her hyperpnea could have been hysterical in type. At any rate she was very acutely ill in appearance, and her clinical appearance was alarming. The fact that she improved rapidly after being brought to a proper state of hydration and the discontinuance of sulfanilamide would seem to indicate that most of her symptoms were on an organic basis.

CONCLUSION

Sulfanilamide applied to burned areas may be rapidly absorbed and may produce high blood sulfanilamide levels associated with alarming clinical symptoms. These are probably exaggerated by dehydration. It is suggested that the amount of sulfanilamide applied locally to burned areas be kept within therapeutic dosages, and that the blood sulfanilamide level be watched closely.

ABSTRACT

FIND PENICILLIN EFFECTIVE WHERE SULFONAMIDES FAILED

Effective use of penicillin in three patients with gonorrhea, in whom the infection was completely resistant to what might be considered adequate treatment with sulfonamide preparations, is reported by Wallace E. Herrell, M.D.; Edward N. Cook, M.D., and Luther Thompson, Ph.D., Rochester, Minn., in *The Journal of the American Medical Association* for May 29.

Penicillin is a recently discovered substance, obtained from a mold, which has been found to have remarkable powers in combating certain types of infections.

The three men say that their experimental evidence "immediately suggests that penicillin should prove effective in the treatment of clinical infections due to these sulfonamide resistant bacteria. . . .

"Because of the limited amounts of penicillin available, we feel that penicillin therapy should be reserved and studied further in those cases in which the infection is resistant to the accepted forms of treatment now being used. . . ."

They found that the several strains of the organism "are inhibited completely in fairly high dilutions of an active form of penicillin. Bacterial cultures reveal that the number of organisms is decreased greatly at the end of one or two hours' contact with penicillin. Between the second and third or third and fourth hours in contact with penicillin no viable organisms were found. . . .

"The complete absence of toxicity following the intravenous administration of pyrogen free penicillin, the lack of any discomfort to the patient and the rather rapid disappearance of the clinical symptoms have been observed in three cases of sulfonamide resistant gonorrheal infections. In all the cases reported, in addition to the clinical response noted, negative bacterial cultures were obtained sometime between seventeen and forty-eight hours after the institution of penicillin therapy."

The investigators point out that penicillin, in addition to being antibacterial for the organism, is excreted rather rapidly in the urine. They found that "between a third and a half of the material is excreted through the urinary apparatus. This is, of course, highly desirable in the treatment of infections of the type being considered. The high degree of solubility of the material also permits it to reach the involved tissues readily."

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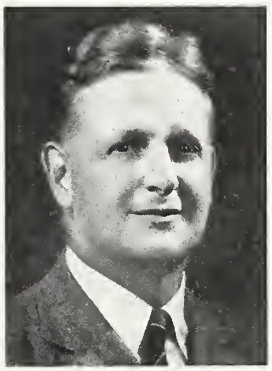

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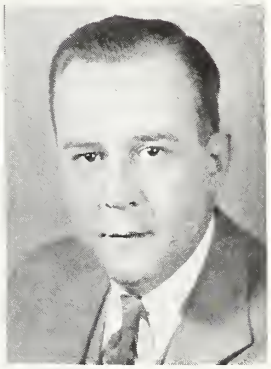

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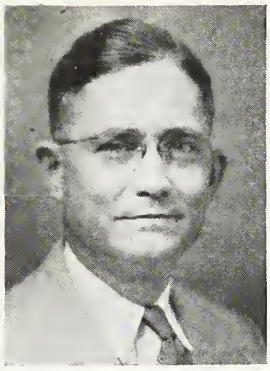

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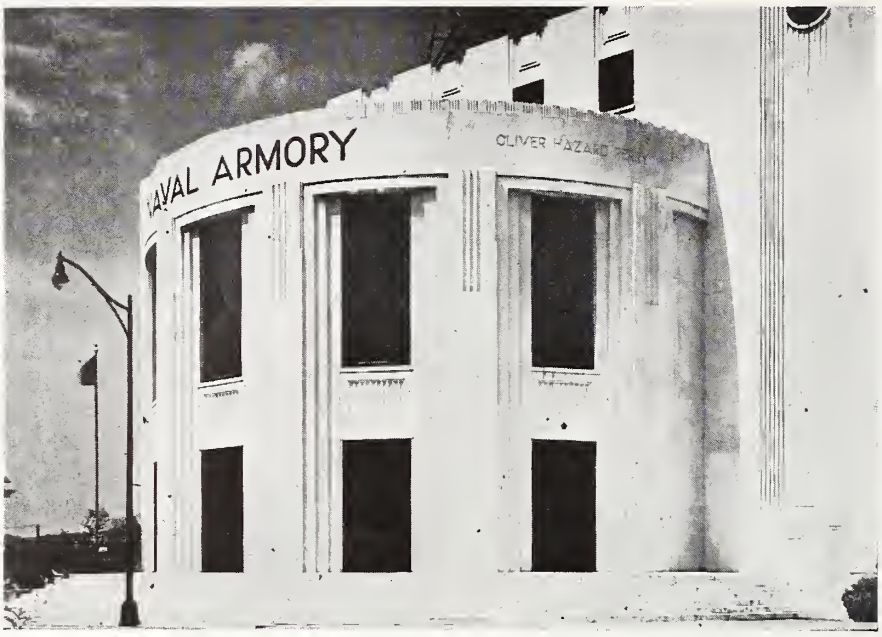
Indiana Salutes the Navy



United States Naval Armory (Indianapolis)

From the banks of the Wabash comes the nautical cry, "Anchors Aweigh." From downtown Indianapolis comes the rhythmic beat of sailors on the march. From landlocked Hoosier cities come salty songs once heard only in coastal ports. The Navy has come, seen and conquered Indiana! From Michigan City, in her northern tip, to Evansville, in her deepest south, naval activities are becoming more and more a part of her natural scene.

In order to pay tribute to Hoosier doctors serving in the Navy, the ninety-fourth annual session of the Indiana State Medical Association, to be held in Indianapolis September 28, 29 and 30, will be "slanted" towards the Navy. The session is to be held in conjunction with the Ninth Naval District, which is made up of thirteen midwestern states. Wednesday, September 29, the second day of the session has been designated as "Navy Medical Day," and all Navy medical officers of the Ninth Naval District are invited to attend. Among the Navy speakers on the program that day will be Rear Admiral John Downes, Commandant, Ninth Naval District; Rear Admiral Ross T. McIntire, Surgeon General, United States Navy; and Captain Joseph A. Tartre, senior dental officer of the Ninth Naval District.

Boat training at the Armory at Indianapolis

Historical Review

On a blistering July afternoon in 1862 the commander of the western fleet of the Northern states boarded the gunboat, *Clara Dolsen*, at Cairo, Illinois, and headed her swiftly up-river for New Albany, Indiana, one of the vital shipyards for the Union. The commander was A. M. Pennock, and his objective was to get to New Albany ahead of forging Confederate troops who, he believed, planned to burn and plunder the Southern Indiana shipyards. The loss of New Albany, or even its temporary disability, would have been a serious blow to the Union in the early years of the war, and both sides knew it. Pennock arrived at New Albany and prepared to withstand an attack from across the Ohio River, but the attack never materialized, for apparently the Confederate forces had gotten wind of his presence.

In the Civil War, New Albany was not the only Indiana bastion engaged in naval work for the North. Jeffersonville and Evansville also housed shipyards which turned out sloops to patrol the Mississippi River and to help blockade the South.

There was also a General Lew (Ben Hur) Wallace, a renowned Civil War figure from Crawfordsville, Indiana. Although he was first and foremost an Army man, he once took command of the Northern gunboat, *Indianola*, at Cincinnati

The sloop VINCENNES in Disappointment Bay at the discovery of the Antarctic Continent, January 19, 1840.

(This was reproduced from a picture which appeared in "A Naval History of Vincennes," written by Judge Curtis G. Shake, of Vincennes, Indiana, in 1936, and was taken from an oil painting by an unknown artist in the Peabody Museum, Salem, Massachusetts.)

and kept the command until the Secretary of the Navy relieved him with a suitable replacement, for General Wallace's strategems were urgently needed elsewhere. This was in 1862.

Even before this, however, Indiana as a state was well known to the Navy Department, for in 1826 a sloop which was destined to become the flagship of the United States Navy was commissioned the *Vincennes* after the city in the southern part of the state. This was the first of a series of vessels which were to carry that name.

There are few ships in history which have a more glorious or more colorful record than this first *Vincennes*. In 1829 it circumnavigated the globe—the first of its two round-the-world voyages—to become the first American vessel ever to perform such a feat. It was one of the two ships which first entered and kicked open the closed door of Japan with Commodore Perry. It was the flagship of the Charles Wilkes' expedition into southern seas, and it was from the bow of this sloop that man first saw the Antarctic, for it was the Wilkes' expedition which first nosed its way into those icelandic wastes. Such was the mark of the first *Vincennes*. In the Battle of the Savo Island several months ago, the cruiser *Vincennes* was sunk, but since then a new United States warship has edged into the waves, bearing the name *Vincennes*. It seems that this little southern Indiana town is "set" with the Navy, and it should be that way, for all of its naval namesakes have proved themselves meritorious.

Indianapolis has contributed its "own" naval air squadron; a cruiser, commissioned in 1932, was named the *Indianapolis*.

Hoosiers Serve in World War I

Indiana's naval history reveals that two admirals, three captains, ten commanders, and hosts of other high naval authorities served during World War I. The two admirals were Vice-Admiral A. P. Niblack and Rear Admiral N. R. Usher, and amazingly enough both were from Vincennes. They are now deceased.

It took a war, of course, to get the Navy firmly entrenched in the Hoosier realm, but the Navy had dug in a foothold and established a beachhead back in 1922. At that time the Naval Reserve Act established a Reserve Battalion in Indianapolis with a detached division in Michigan City. The units were trained first in armories, later on the Great Lakes, and finally on salt water. Indiana was designated as the Third Naval Reserve Area in the Ninth Naval District, which comprises thirteen Middle Western states.

Indiana's Navy program has made considerable progress since 1922, and so have the two officers

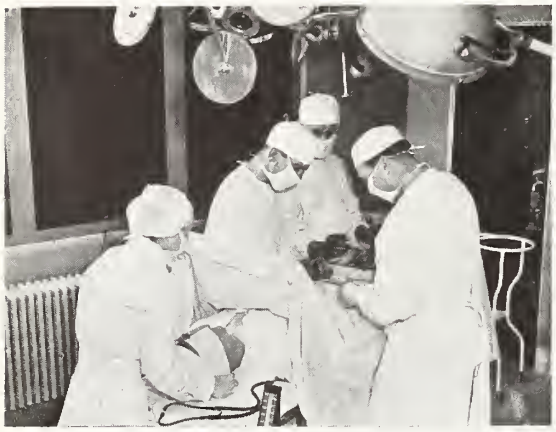
United States Naval Training School (Radio) at the U. S. Naval Armory at Indianapolis

Administration Building, United States Naval Hospital, Great Lakes, Illinois

responsible for its growth. Captain O. F. Heslar is Director of Training for the Ninth Naval District. Captain Felix M. McWhirter is District Security Officer, responsible for Internal Security Supervision, Coordination and Inspection in all naval establishments in thirteen states. Both are on the staff of the commandant at the headquarters of the Ninth Naval District at Great Lakes, Illinois.

In 1936, with the help of the WPA, the state government and the cities of Indianapolis and Michigan City, the Indiana Reserve constructed modern armories. The foresight paid off. Three years later, when a state of National Emergency was declared, the armories were put into use as training schools for badly needed sailor-specialists.

On West Thirtieth Street, Indianapolis, stands one of the Midwest's most spacious and adequate naval armories. With the exception of those at Great Lakes, the first school in the Ninth Naval District was housed in the Indianapolis structure. More than 500 potential radio men and cooks and bakers were soon calling the Armory their Alma Mater. The Navy's invasion was under way.



Operation being performed at the United States Naval Hospital, Great Lakes, Illinois

Two hospital corpsmen placing a patient in an ambulance at the United States Naval Hospital, Great Lakes, Illinois

In rapid succession other training schools were founded. To Michigan City came 300 pre-radio men and more cooks and bakers. At Bunker Hill a Naval Air Station was commissioned. Its complement soon included 465 cadets, 1809 enlisted men and 238 officers. This station, which sprawls over 2,340 acres of what one northern Indiana farmer calls "the best d—— corn lands in the state," is near Peru. This base is rapidly becoming one of the nation's finest.

Bluejacket Population Grows

Indiana's Bluejacket population is steadily growing—and always changing. Most of the activities operate on a 25 per cent monthly turnover basis.

United States Naval Air Station, Bunker Hill, Indiana

The courses usually last four months, with a new class starting and graduating each month.

Feeling the need for more and more officers, the Navy instituted the College Training Program known as V-12. Under this plan young men between the ages of seventeen and twenty-two with satisfactory educational and physical qualifications are inducted, outfitted and placed on active duty with pay. The length of their courses vary. During the first eight months emphasis is placed on general college work. A period of specialized Navy training follows, leading to a commission. Five Indiana schools were selected for the V-12 program. Four of the five were already instructing Navy specialists. The group included Notre Dame, Purdue, DePauw, Indiana State Teachers' College and Wabash College. More than 4,000 V-12 students are studying within the state boundaries.

At Indiana University there are 1,200 WAVES, SPARS, and women Marine Reservists, and about 100 medical and dental students finishing their education at the expense of the Navy; and at the Ball State Teachers' College and the Evansville College there are war training service schools—all of these are Navy institutions established in Indiana today. They are doing their share in protecting the doctrines of democracy.

Indiana's total number of trainees at any given time is in excess of 11,000. Due to constant turnover in the schools, the grand total is many times greater.

Indiana gave the services of 12,253 of her sons to the Navy during World War I, and thousands more are serving today. In fact, Indiana has led all of her sister states in naval enlistments at regular intervals since the attack on Pearl Harbor.

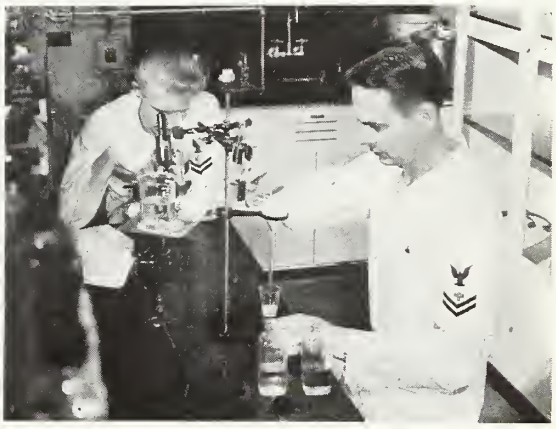
There is no lack of epaulets on Hoosier shoulders in the Navy today. From LaPorte we have Admiral Royal E. Ingersoll, commander-in-chief of the Atlantic Fleet; Raymond A. Spruance, formerly of Indianapolis, is a vice-admiral; Jonas H. Ingram, of Jeffersonville, is now a vice-admiral and commander of the South Atlantic zone; Rear Admiral Arthur B. Cook, Evansville, is chief of Air Operational Training; and Rear Admiral Edward J. Marquart, is commandant of the Third Naval District.

Admiral Scott Killed in Action

To date Indiana's leading hero of World War II probably is Admiral Norman Scott, of Indianapolis, Shortridge High School alumnus, who was awarded posthumously America's highest military decoration, "The Congressional Medal of Honor for Bravery at the Battle of the Solomons," where he met his death. He led his light cruisers into the middle of the Japanese grand fleet during a night attack, sinking several of the Japanese heavy battleships and putting the rest to flight.

Hoosiers Take to the Navy

Purdue University has given her dean of women, Dorothy C. Stratton, to head the SPARS, the



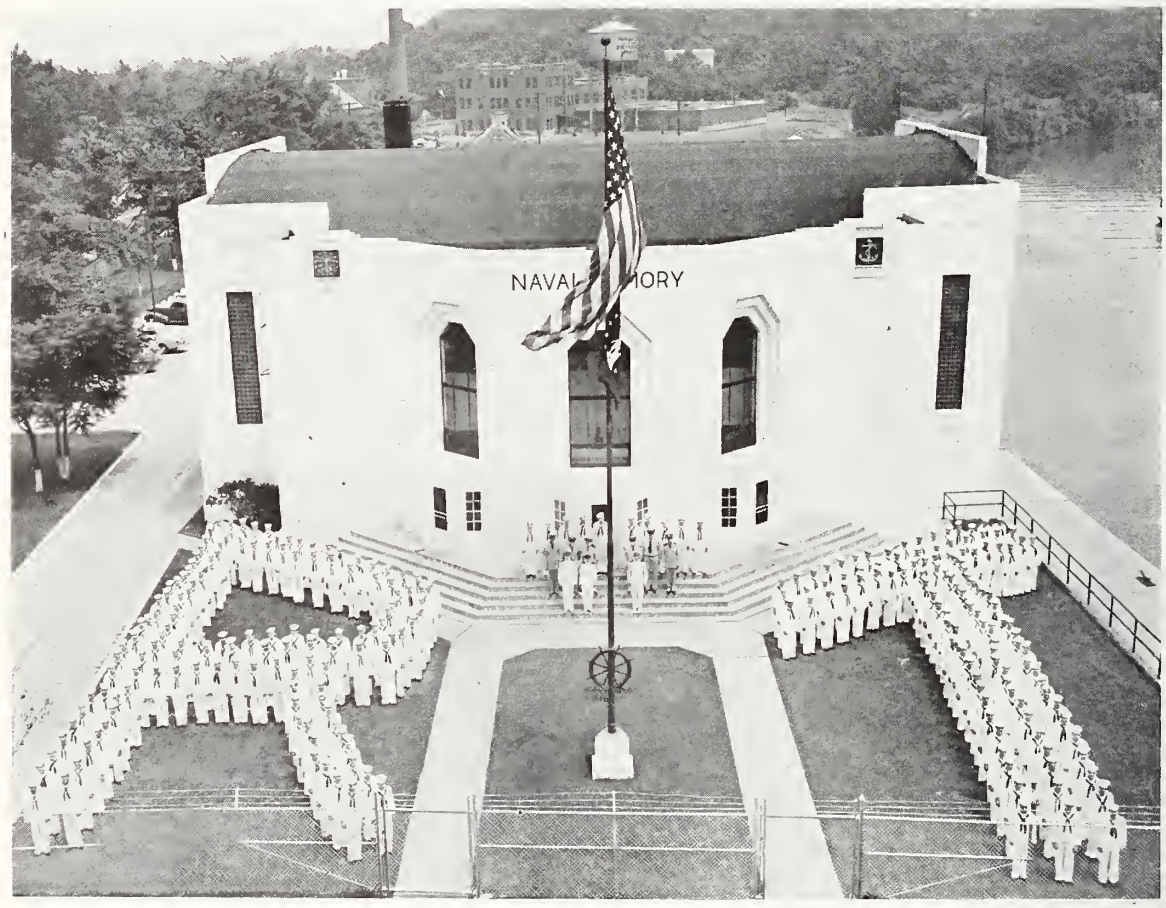
Two corpsmen at the U. S. Naval Air Station, Bunker Hill, Indiana, are busy at work in the modern laboratory at the dispensary. At left, the second-class pharmacist mate runs a test for non-protein nitrogen blood. At right, the corpsman with a similar rating, is searching for a malaria parasite.

A general aerial view of the U. S. Naval Air Station, Bunker Hill, Indiana. This is the picture students and instructors see when they approach the station from the south.

Lieutenant E. E. Caulkins and Ensign Blanche M. O'Bryant, N.C., stand beside one of the ambulance airplanes used by the U. S. Naval Air Station, Bunker Hill, Indiana.

feminine Coast Guard. Captain O. O. Kessing is with Admiral Halsey. Captain Kessing was born in Greensburg, Indiana; and his father, who is over ninety, and other members of the family reside in Indianapolis. Navy men take to Hoosiers, and the feeling is mutual.

The state of Indiana has spiked that old axiom that Navy men, to be good ones, must be trained near or on navigable water. Instead, many of the most efficient and keenest naval officers and men today hum "On the Banks of the Wabash" as they scan the reaches of the blue horizon.



Naval Training School (Pre-Radio), Naval Armory, Michigan City

(All the photographs in this story are "Official U. S. Navy Photographs," except the one of the "Vincennes.")

ARMY AND NAVY REPRESENTATIVES ON INDIANA PROGRAM

This Chief of the Bureau of Medicine and Surgery, the twenty-third to hold that office, was born at Salem, Oregon, on August 11, 1889. He is the first Surgeon General of the Navy to be born west of the Rocky Mountains.

REAR ADMIRAL ROSS T. McINTIRE

Surgeon General, United States Navy, Washington, D. C.

Rear Admiral McIntire was appointed to the office of Surgeon General of the Navy on December 1, 1938, by President Franklin D. Roosevelt, and was forty-nine years of age at the time of appointment.

As a boy in Salem, Oregon, the future Surgeon General attended public school and graduated from high school. He received his degree of Doctor of Medicine in 1912 from the Medical School of Willamette University, now the Medical School of the University of Oregon. At the beginning of the World War he was commissioned an assistant surgeon in the Medical Corps of the United States Navy with the rank of lieutenant, junior grade. His first commission was dated April 4, 1917, two days before the United States declared war on Germany. He completed a postgraduate course at the Naval Medical School, Washington, D. C., in naval medicine. From July 22, 1917, until January, 1920, he served at sea on board the *U.S.S. New Orleans* and he holds the Victory Medal with Escort Clasp. His subsequent service included a short period at the Naval Hospital, Canacao, Philippine Islands, and a year in the Naval Medical School, Washington, D. C., from which he went to duty as head of the Eye, Ear, Nose and Throat Department of the Naval Hospital, San Diego, California. He has also served twice at sea on the hospital ship, the *U.S.S. Relief,* both times as head of the department of eye, ear, nose and throat. In 1931 he returned from the Relief to the Naval Hospital, Washington, D. C. and to additional duty as instructor in ophthalmology and otolaryngology at the Naval Medical School. Two years later he was assigned to temporary additional duty as physician at the White House, and on February 13, 1935, he was appointed the regular physician to the White House with additional duty at the Naval Hospital. He accompanies the President on his numerous inspection trips with the fleet at sea or to oversea bases, and also on official journeys ashore.

Doctor McIntire is a specialist of distinction in ophthalmology and otolaryngology. He is a graduate of special postgraduate courses in these subjects and in bronchoscopy. He is a member of the American Medical Association, the Association of Military Surgeons, and a Fellow of the American College of Surgeons.

As Surgeon General of the Navy, he has had important duties in connection with the expansion of the Medical Department of the Navy in the present national emergency. This includes the great and rapid increase in the numbers of all naval medical personnel, medical officers, dental officers, pharmacists, nurses, and enlisted men. The building of many new naval hospitals and the expansion of facilities of those already in existence, with the purchase and installation of equipment, were among these important tasks. Arrangements for the establishment of medical department facilities at the new bases from Newfoundland to South America had to be made. Coincident with the performance of this work, it was necessary to maintain research in various branches of Naval medicine in order to keep abreast of the rapidly changing developments brought out by the war.

In addition to carrying all these responsibilities, he has also continued as physician to the White House and is the personal physician to the President. He is thus charged with the important task of caring for the health of the President of the United States, who, it must be remembered, is also by law Commander-in-Chief of the Army and Navy.

As Chief of the Bureau of Medicine and Surgery, he is a Rear Admiral, Medical Corps, United States Navy, with the official title of Surgeon General, United States Navy.

Rear Admiral John Downes, U. S. Navy, Commandant Ninth Naval District, Great Lakes, Illinois, is the fourth of the same name to serve the Navy from 1800 to date. His predecessors were Commodore John Downes, Commander John Downes, and Lieutenant John Downes. The last named (his father) was retired for physical disability in 1890, but returned to active duty during the Spanish-American War.

REAR ADMIRAL JOHN DOWNES,

United States Navy, Commandant, Ninth Naval District, Great Lakes, Illinois.

Rear Admiral Downes, who was born in Boston on November 16, 1879, received his junior education in public and private schools of Massachusetts and was appointed to the Naval Academy by President McKinley. Graduating in 1901, he proceeded at once to the Asiatic Station where he served, on various ships, until May, 1905. Returning to the United States he helped place the gunboat, *Nashville,* in commission and served on her as navigator in West Indian waters. In 1906, he was commissioned a lieutenant and spent two years in Des Moines, Iowa, as recruiting officer. His next ship was the old armored cruiser *South Dakota,* followed by the battleship, *Louisiana,* and then he served one year as executive officer and navigator of the *Dolphin,* at that time assigned as the Secretary of the Navy's yacht. Following two years at the Naval Gun Factory, as inspector of Ordnance, he went to sea on the staff of the late Rear Admiral F. E. Beatty. This duty lasted for two years and was followed by one year as gunnery officer of the *Florida.*

In September, 1915, he was ordered to duty at the U. S. Naval Academy, and after one year as a duty officer with the midshipmen he was appointed aide to the superintendent and secretary of the Academy Board. He spent the entire period of the war at the Naval Academy with the late Rear Admiral E. W. Eberle, and supervised the expansion of the Academy from 1600 midshipmen to 2400 midshipmen and 1200 Naval Reserve officers, together with the erection of the necessary additional quarters and installation of equipment.

Since 1918 he has had command of the following: *U.S.S. Pocahontas,* transport; *U.S.S. Bridgeport,* Submarine Division Eleven; *U.S.S. Omaha* and *U.S.S. Detroit.* From 1926 to 1929 he was Marine superintendent of the Panama Canal and in attendance at the Senior Class of the Naval War College. From 1931 to 1934 he was on duty in the Bureau of Navigation, Navy Department, as Director of Naval Reserves. In June, 1934, he was ordered to sea as chief of staff of the Scouting Force, United States Fleet, and in March, 1935, was relieved of that duty and ordered to duty as commandant, Ninth Naval District, and commanding officer, Naval Training Station, Great Lakes, Illinois; in December, 1936, and in January, 1937, he took command of Cruiser Division Seven of the Scouting Force, United States Fleet. In July, 1938, he was detached from this duty and ordered to the Navy Department in Washington where he assumed duties as president of the Naval Examining and

Retiring Boards. He was detached from duty in Washington in August, 1940, and ordered to duty as commandant, Ninth Naval District and commanding officer, Naval Training Station, Great Lakes, Illinois.

In December, 1942, by order of the Navy Department, Rear Admiral Downes was relieved of his command of the Naval Training Station in order to devote his full time to the rapidly multiplying activities of the Ninth Naval District. By the Division of Command, the Naval Training Station, however, remained under his general supervision as one of the activities of the district, headquarters of which is Great Lakes.

Admiral Downes was commissioned Commander in 1917, Captain in 1924, and Rear Admiral in 1935.

(Admiral Downes plans to be present at the meeting.)

Brigadier General George F. Lull, who is now the Deputy Surgeon General of the Army of the United States, was born in Scranton, Pennsylvania, on March 10, 1887.

BRIGADIER GENERAL GEORGE F. LULL,
Deputy Surgeon General, Army of United States, Washington, D. C.

He served in France during World War I, and has also served in Panama and the Philippine Islands.

He has received the following degrees: M.D., from Jefferson Medical College in 1909; C.P.H., from Harvard-Technology School of Public Health, in 1921; and Dr.P.H., from University of Pennsylvania in 1922.

He has served in the Medical Corps of the United States Army continuously since September, 1912, through all grades from first lieutenant to brigadier general.

Captain E. A. Lofquist has had a varied and colorful career both on ship and ashore. A native of New Jersey, he was appointed to the United States Naval Academy from Iowa, and graduated in 1907. His first tour of duty took him around the world on the Battleship *Connecticut*, Admiral Evans' flagship.

CAPTAIN E. A. LOFQUIST,
Chief of Staff, Ninth Naval District, Great Lakes, Illinois.

He next served on the Armored Cruiser *California*; at the Naval Training Station at Goat Island, in San Francisco Bay, as drill officer and Executive Officer; and on the *U.S.S. Delaware* as acting engineer.

Early 1917 found Captain Lofquist as Commander of the First Armed Guard aboard the *S.S. St. Paul*, which crossed the Atlantic as war clouds gathered over the United States. Captain Lofquist was in London on April 6, when this country declared war on Germany.

During World War I he helped to establish the Naval Training Station at San Diego, California. As executive officer of the *S.S. Great Northern*, he made six wartime Atlantic crossings on the ship which established the record for the fastest round-trip passage made by any transport between New York and Brest. In 1918 he went to the *U.S.S. Pennsylvania* as Fleet Navigator.

After the war he served as instructor in the Department of Navigation at Annapolis; as Navigator of the *West Virginia*, the most modern of our battleships until the recent commissioning of the *North Carolina*; as detail officer in the Bureau of Navigation; as executive officer of the *California*, and in the Bureau of Ordnance.

Command of the *U.S.S. Dobbin*, a Destroyer Tender, came next, followed by the Senior Course at the Naval War College in Newport, Rhode Island. His tour of duty as Chief of Staff of the Ninth Naval District, at Great Lakes, next occupied his time from June, 1937, to January, 1939, when he was ordered to the command of the *U.S.S. Oklahoma*. His return to Great Lakes, as Chief of Staff of the Ninth Naval District, followed his completion of the advanced course at the Naval War College.

Captain O. F. Heslar was born in Brazil, Indiana, in 1891. When he was twelve years old his family moved to Indianapolis. Later he left high school to join the Navy, and was ordered to Norfolk, Virginia. There he was examined for training in engineering—the field in which his aptitudes became quickly apparent—and four months later he was sent to the Navy Yard in New York for an electrical course. After six months' training there, he was ordered to submarine duty aboard the *U.S.S. Porpoise*, which was on her way to be stationed at Cavite, Philippine Islands. He served aboard the *Porpoise* and the *U.S.S. Shark* until November, 1912, when he spent three months in China, and returned to the United States in February, 1913.

CAPTAIN O. F. HESLAR,
Headquarters, Ninth Naval District, Great Lakes, Illinois.

He spent a year at the radio station at Norfolk, and this was followed by a tour of duty installing radios aboard light ships. In 1915 he was aboard the *U.S.S. Vulcan* on a voyage to the Near East, then was ordered to duty as chief electrician at the Tuckerton (N. J.) Radio Station, then a German station.

Captain Heslar was commissioned an ensign early in 1917 and took over command of the Tuckerton Station when the United States entered the World War. While there he improved the German equipment and developed the telegraphone for high-speed reception, which was adopted by the Navy and used in trans-oceanic circuits. Following the war he was placed in charge of telephone, telegraph and cables in the Navy Department.

In 1919 he was ordered to the staff of Admiral Wilson, Commander-in-Chief of the Atlantic Fleet, as Fleet Radio Material Officer charged with installation of new radio equipment in ships and air-craft. In 1921 he was transferred to Admiral Jones' staff as Fleet Radio Material Officer to install radio equipment on the *U.S.S. Columbia*, the Fleet Tactical Flagship.

In January, 1922, Captain Heslar resigned from the Navy and was transferred to the Naval Reserve. He returned to Indianapolis where he went into business as a consulting engineer in radio. During this period Captain Heslar was active in reorganization of the Naval Reserve, and late in 1923 he was recalled to active duty to calibrate radio compass stations of the Great Lakes. In this connection he was given command of the subchaser 419.

He then was assigned to command of the Naval Reserve in the Third Area, remaining in that command until late 1939.

Captain Heslar commanded the training ships, the *U.S.S. Hawk* and the *U.S.S. Sacramento*, and planned and supervised the building of the Naval Armories in Indianapolis and in Michigan City. In September, 1939, he organized and placed in commission in the Indianapolis Naval Armory the first radio school under the new war-training program.

Subsequently, before he was called to Great Lakes, he placed the *Sacramento* in commission, delivered her to the Boston Navy Yard and remained in command until her overhaul was completed in April, 1941.

Captain Heslar was promoted to his present rank in June, 1942.

Captain Henry Louis Dollard was born in Cold Spring Harbor, Long Island, New York, September 5, 1880. When very young his family moved to Oyster Bay, Long Island, New York. He attended school at Flushing, Long Island, graduating from Flushing High School. He received his B.A. degree from Columbia, and his medical degree from the College of Physicians and Surgeons, affiliated with Columbia, 1901.

CAPTAIN HENRY LOUIS DOLLARD,
Medical Officer, Headquarters, Ninth Naval District, Great Lakes, Illinois.

Captain Dollard entered the Navy as Past Assistant Surgeon—present equivalent of Lieutenant (jg)—in 1905, after having served four years interning at the Lying-In and Columbus Hospitals, both of New York City. He has been on active duty ever since, going into the thirty-seventh year. He went around the world with the fleet in 1907-08, then stationed in the Philippines; has served on *U.S.S. Oklahoma, U.S.S. Pennsylvania,* and *U.S.S. Medusa.* He attended the Navy Medical School at Washington in 1916, and was subsequently attached to the Bureau of Medicine and Surgery, and served as Chief of Medicine at the Boston Naval Hospital. He was Executive Officer at the Naval Hospital at Great Lakes in 1931, and in 1933 he was Commanding Officer of the Naval Hospital at Charleston, South Carolina. He was sent back to the Naval Hospital at Great Lakes in 1935, when it reopened, and remained until 1939, when he became the Commanding Officer of Naval Hospital at Philadelphia. He was sent back to Great Lakes June 6, 1942.

Captain Joseph Armand Tartre, senior dental officer at Great Lakes, was born in Biddeford, Maine, on December 20, 1892. He graduated from Tufts College, Boston, in 1914, with a degree of Doctor of Dentistry and practised his profession in Biddeford for three years. He entered the Navy in 1917.

CAPTAIN JOSEPH ARMAND TARTRE,
United States Navy, Senior Dental Officer, Ninth Naval District, Great Lakes, Illinois.

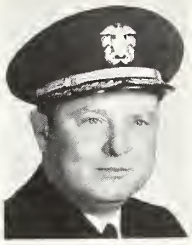
During the first World War he served aboard the *U.S.S. Michigan* on convoy duty in the Atlantic.

In the course of his twenty-six years in the Navy, Captain Tartre has served aboard nine ships. In addition to the *Michigan,* they were the cruiser, *U.S.S. Pittsburgh*; the light cruiser, *U.S.S. Chicago*; the hospital ship, *U.S.S. Comfort*; the battleship, *U.S.S. Oklahoma*; the transport, *U.S.S. Chaumont*; the aircraft carrier, *U.S.S. Saratoga* and the subtender, *U.S.S. Holland.*

He reported for duty at Great Lakes on October 1, 1938, and was promoted to captain July 1, 1941. He is also serving as assistant to the Ninth Naval District Medical officer.

Captain Tartre is a Fellow of the American College of Dentists and was made an honorary member of Omicron Kappa Upsilon, dental society, at Northwestern University in 1942. In 1919 he was awarded a Victory Medal, with battleship escort clasp.

The following is an autobiography written by Commander John F. Luten, M.C., United States Navy, Assistant District Medical Officer, Ninth Naval District, Great Lakes, Illinois. If you don't think this fellow has an interesting story to tell, just read this biography.



COMMANDER JOHN F. LUTEN
United States Navy, Assistant District Medical Officer, Great Lakes, Illinois.

"I was born in Tennessee in 1900. I am married and have one child, a daughter 16 years old, who, incidentally, was born in Shanghai, China.

"I obtained my premedical education at Vanderbilt University and received my degree as Doctor of Medicine from the Vanderbilt School of Medicine in 1924. I underwent four years' training in the Medical Reserve Corps, United States Army, including a summer course of instruction at the Medical Field Service School, Carlisle, Pennsylvania, in 1922, while an undergraduate medical student. I was affiliated with the Phi Kappa Psi fraternity academic, and the Alpha Kappa Kappa medical fraternity.

"In 1924 I was commissioned in the Medical Corps, United States Navy, and interned in the United States Naval Hospital, San Diego, California. I was ordered to the United States Asiatic Fleet in 1925 and spent about four years on Asiatic duty, most of which was spent in China. For eight months I was medical officer of the *U.S.S. Pecos,* which was sunk during the present war. While serving aboard this ship I had the pleasure of meeting Dr. Richard L. Sutton, Sr., in Shanghai. He was on a hunting expedition to Indo-China. I was also the medical officer of the *U.S.S. Elcano,* a gunboat of the Yangtze Patrol Force, captured from the Spaniards during the Spanish American War, which based at Ichang, China. Ichang is one thousand miles up the Yangtze River from Shanghai at the foot of Yangtze Gorges. (Chunking is about three hundred fifty miles above Gorges.) This was when Chiang Kai Shek first started his drive from the South, which ultimately led to his position of power as Generalissimo of United China. I saw severe fighting while in the Elcano and got my first baptism under fire. After thirteen months of gunboat duty I was attached to the 4th Regiment, United States Marines, in Shanghai. In December 1928 I returned to the United States and was attached to the United States Naval Hospital, Mare Island, California. I received postgraduate courses of instruction in Urology at the University of California Medical School under Dr. Frank Hinman in 1929 and in 1939, and was stationed at the United States Naval Dispensary, Guantanamo Bay, Cuba, for two years. I have been chief of the Urological Department at the United States Naval Hospital, Mare Island, California; United States Naval Hospital, San Diego, California; and the hospital ship *U.S.S. Relief.* I have also been medical officer of the *U.S.S. Argonne,* flagship of the Base Force, when the Pacific Fleet made the cruise to the East coast in 1939. Our destination was the World's Fair in New York City. Upon arriving in Norfolk, Virginia, the Pacific Fleet was suddenly recalled to the West coast due to tension in the Far East. I was attached to the *U.S.S. Maryland* in the Spring of 1941 as senior medical officer. The latter was one of the ships present in Pearl Harbor during the Japanese attack December 7, 1941, and received damages, and I received minor injuries during the action. I saw continuous duty afloat in the Pacific until October 1942. Since that time I have been attached to the Ninth Naval District Headquarters as assistant district medical officer.

"I am a Fellow of the American Medical Association and a member of the Association of Military Surgeons. I have the Yangtze Service Medal, Navy Expeditionary Medal, American Defense Service Medal, the Asiatic-Pacific Area Campaign Medal, the American Area Campaign Medal and the Purple Heart.

Official Program

94th Annual Session

INDIANA STATE MEDICAL ASSOCIATION
in conjunction with
NINTH NAVAL DISTRICT
INDIANAPOLIS, INDIANA
September 28, 29 and 30, 1943

Monday, September 27, 1943

Meeting of state health officers.

6:30 p.m. Executive Committee dinner and meeting, Louis XIV Room, mezzanine floor, Claypool Hotel.

Tuesday, September 28, 1943

Morning

8:00 a.m. Registration starts, Riley Room, Claypool Hotel.

8:00 a.m. Opening of Commercial Exhibit, Riley Room, Claypool Hotel.

8:00 a.m. Opening of Scientific Exhibit, mezzanine floor, Claypool Hotel.

11:00 a.m. Instructional Courses, Parlors E, C, D and English Room, Claypool Hotel.

Afternoon

12:15 p.m. Luncheon meeting of members of the state and county Anti-Tuberculosis Committees, Parlor B, mezzanine floor, Claypool Hotel.

Speaker: **HERMAN E. HILLEBOE, M.D., Senior Surgeon, Medical Officer in charge of Tuberculosis Control Section of the United States Coast Guard and the United States Public Health Service, Washington, D.C.**

Subject: ***"Tuberculosis Control in Industry."*** **(Illustrated with 35 mm. film.)**

Discussion by Fred B. Wishard, M.D., Medical Director, Delco-Remy Division, Anderson, and Philip H. Becker, M.D., Superintendent, Lake County Tuberculosis Sanatorium, Crown Point.

General Discussion.

X-ray conference sponsored by Indiana Chapter, American College of Chest Physicians.

12:30 p.m. Council meeting, Room 209, mezzanine floor, Claypool Hotel.

2 to 5 p.m. Instructional Courses, Parlors E, C, D and English Room, mezzanine floor, Claypool Hotel.

4:00 p.m. Meeting of House of Delegates, Assembly Room, eighth floor, Claypool Hotel.

Evening

6:30 p.m. Annual dinner meeting for women physicians, Propylaeum.

Speaker: **EDITH B. SCHUMAN, M.D., Bloomington.**

Subject: ***"Work with the Army at Bloomington."***

6.30 p.m. Smoker and stag party, Recreation Room, Murat Temple, 508 North New Jersey Street. (Doors open at 6:15 p.m.)

Wednesday, September 29, 1943

Morning

7:30 a.m. Breakfast meeting of members of the state and county Conservation of Vision Committees, Louis XIV Room, mezzanine floor, Claypool Hotel.

Speaker: **HARRY S. GRADLE, M.D., Chicago.**

8:00 a.m. Registration continues, Riley Room, Claypool Hotel.

8:00 a.m. Commercial Exhibits, Riley Room, Claypool Hotel.

8:00 a.m. Scientific Exhibit, mezzanine floor, Claypool Hotel.

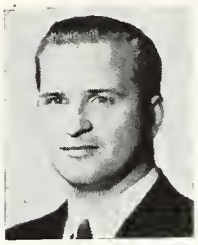
GENERAL MEETING

(Assembly Room, Eighth Floor, Claypool Hotel)

9:00 a.m. Call to order by C. H. McCaskey, M.D., Indianapolis, president, Indiana State Medical Association.

9:05 a.m. Greetings and introduction of Walter P. Morton, M.D., Indianapolis, president of the Indianapolis Medical Society, by Gordon W. Batman, M.D., chairman of the Committee on Convention Arrangements.
Official welcome by Robert H. Tyndall, Mayor of Indianapolis.

9:15 a.m. President's address, CARL H. McCASKEY, M.D., Indianapolis.



HERMAN E. HILLEBOE, M.D.
Senior Surgeon, Medical Officer in charge of Tuberculosis Control Section of the U. S. Coast Guard and the U. S. Public Health Service, Washington, D. C.

HARRY S. GRADLE, M.D.
Chicago

REED M. NESBIT, M.D.
Associate Professor of Surgery, University of Michigan Medical School, Ann Arbor.

Scientific Program

9:30 a.m. ADMIRAL ROSS T. McINTIRE, M.D., Surgeon General, United States Navy, Washington, D.C.

Subject: *"Navy Medical Services in Combat."*

10:00 a.m. REED M. NESBIT, M.D., Associate Professor of Surgery, University of Michigan Medical School, Ann Arbor, Michigan.

Subject: *"The Modern Treatment of Prostatic Cancer—A Rational Basis for Delayed Hormone Therapy."*

10:30 a.m. NORMAN H. JOLLIFFE, M.D., Associate Professor of Medicine, New York University College of Medicine, New York.

Subject: *"The Cause, the Signs and Treatment of Malnutrition."*

11:00 a.m. COMMANDER JOHN F. LUTEN, M.C., U. S. Navy, Assistant District Medical Officer, Great Lakes, Illinois.

Subject: *"Battle Casualties with Special Reference to the Use of Sulfonamides."*

11:30 a.m. ERNEST PERRY McCULLAGH, M.D., Cleveland, Ohio.

Subject: *"The Use of Gonadal Hormones in General Medical Practice."*

Afternoon

12:00 Noon 1907 Medical College alumni luncheon, Claypool Hotel.

12:15 p.m. Fraternity, class and service men's luncheons and get-togethers.

12:15 p.m. War Participation Luncheon, Chateau Room, Claypool Hotel. Charles R. Bird, M.D., chairman, Procurement and Assignment Service for Indiana, presiding.

(1) Speaker: GEORGE F. LULL, Brigadier General, A.U.S., Deputy Surgeon General, Washington, D.C.

Subject: *"The American Doctor in the War."*

(2) Speaker: REAR ADMIRAL JOHN DOWNES, Commandant, Ninth Naval District, Great Lakes, Illinois.

2:00 p.m. Dental meeting, Louis XIV Room, mezzanine floor, Claypool Hotel.

Speaker: CAPTAIN JOSEPH A. TARTRE, Senior Dental Officer, Ninth Naval District, Great Lakes, Illinois.

Subject: *"Navy Dental Corps at the Great Lakes Naval Training Station."*

SECTON MEETINGS

Wednesday, September 29, 1943

MEDICAL SECTION

*Chairman, Donald E. Wood, M.D., Indianapolis
Vice-chairman, George Willison, M.D., Evansville
Secretary, Eugene F. Boggs, M.D., Indianapolis

(Assembly Room, Eighth Floor, Claypool Hotel)

2:00 p.m. COLONEL THOMAS T. MACKIE, Walter Reed Hospital, Washington, D.C.
Subject: *"Tropical Diseases—A War and Post-War Problem Affecting the Continental United States."*

2:40 p.m. Discussion.

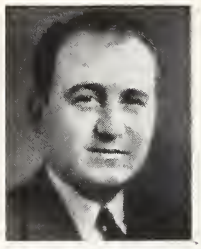
2:55 p.m. LARUE D. CARTER, M.D., Indianapolis.
Subject: *"Neuroses Incident to War Strain—Their Effects on the Civilian Population."*

3:30 p.m. Discussion by L. P. Harshman, M.D., Fort Wayne.

3:45 p.m. ERNEST PERRY McCULLAGH, M.D., Cleveland, Ohio.

NORMAN H. JOLLIFFE, M.D.
Associate Professor of Medicine, New York University College of Medicine, New York.

ERNEST PERRY McCULLAGH, M.D.
Cleveland.



JOHN M. WAUGH, M.D.
Assistant Professor of General Surgery, University of Minnesota Graduate School, Minneapolis-Rochester.

Subject: *"Newer Advances in Endocrinology."*

4:30 p.m. Discussion.

4:45 p.m. Election of Section officers.

SURGICAL SECTION

Chairman, W. D. Inlow, M.D., Shelbyville
Vice-chairman, W. H. Howard, M.D., Hammond
Secretary, Lyman T. Rawles, M.D., Fort Wayne

(Chateau Room, First Floor, Claypool Hotel)

2:30 p.m. JOHN M. WAUGH, M.D., Assistant Professor of General Surgery, University of Minnesota Graduate School, Minneapolis-Rochester, Minnesota.

Subject: *"Vaginal Hysterectomy: Indications and a Method."*

3:00 p.m. E. S. JONES, M.D., Hammond.

Subject: *"Pancreatic Cysts with Report of Two Unusual Cases."*

3:30 p.m. GEORGE COLLETT, M.D., Crawfordsville.

Subject: *"Erythroblastosis Fetalis—A Case Report With Some Additional Observations on the Role of the Laboratory in the County Hospital."*

4:00 p.m. A. F. WEYERBACHER, M.D., Indianapolis.

Subject: *"Psychological Considerations in Orchidectomy for Cancer of the Prostate."*

4 30 p.m. Election of Section officers.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman, O. G. Brubaker, M.D., North Manchester
Vice-chairman, Claude A. Robison, M.D., Frankfort
Secretary, Bernard D. Ravdin, M.D., Evansville

(Palm Room, Ninth Floor, Claypool Hotel)

2:00 p.m. CHARLES H. ADE, M.D., Lafayette.

Subject: *"Ocular Problems Present in War Workers."*

2:20 p.m. Discussion by Hugh Kuhn, M.D., Hammond.

2.30 p.m. KENNETH L. CRAFT, M.D., Indianapolis.

Subject: *"Nasal Allergy."*

2:50 p.m. Discussion by B. D. Ravdin, M.D., Evansville.

3:00 p.m. H. C. WURSTER, M.D., Mishawaka.

Subject: *"Sympathetic Ophthalmia."*

3:20 p.m. Discussion by Charles Gillespie, M.D., Seymour.

3:30 p.m. PETER C. KRONFELD, M.D., Chicago.

Subject: "Indications for Paracentesis of the Anterior Chamber."

4:30 p.m. Election of Section officers.

SECTION ON ANESTHESIA

Chairman, Ernest P. Buckley, M.D., Jeffersonville
***Vice-chairman, Frank W. Ratcliff, M.D., Lafayette**
Secretary, John M. Whitehead, M.D., Indianapolis

(Parlor B, Mezzanine Floor, Claypool Hotel)

2:00 p.m. LILLIAN B. MUELLER, M.D., Indianapolis.

Subject: *"Spinal Anesthesia for Caesarean Section."*

2:30 p.m. Discussion by Fred A. Thomas, M.D., Indianapolis.

2:45 p.m. CHARLES N. COMBS, M.D., Terre Haute.

Subject: *"Improvements in Anesthesia Technique and Analysis of the Records."*

3:15 p.m. Discussion by George M. Rosenheimer, M.D., South Bend.

3:30 p.m. GEORGE J. THOMAS, M.D., Director, Department of Anesthesia, University of Pittsburgh School of Medicine and University Hospitals, Pittsburgh, Pennsylvania.

Subject: *"Pentothal Sodium, Range of Usefulness, Complications and Their Management."*

4:15 p.m. **Discussion by Floyd T. Romberger, M.D., Lafayette.**

4:30 p.m. **Election of Section officers.**

Annual Banquet

Wednesday, September 29, 1943

6:30 p.m. Reception and annual dinner, Indianapolis Athletic Club.
Presiding officer, Carl H. McCaskey, M.D., president, Indiana State Medical Association.

Presentation of certificate of merit to M. A. Austin, M.D., president 1942, by C. H. McCaskey, M.D.

Tribute to 1,180 Indiana physicians in service by Larue Carter, M.D., chairman, Convention Military Service Committee.

Speaker: **HERMAN L. KRETSCHMER, M.D., President-elect, American Medical Association, Chicago.**

Subject: ***"War Problems Faced by the Medical Profession."***

Thursday, September 30, 1943

7:00 a.m. House of Delegates, breakfast meeting, Chateau Room, first floor, Claypool Hotel. Annual election of officers and selection of convention city for 1944.

Meeting of Council immediately following adjournment of House of Delegates.

* In service.

Announcements

SCIENTIFIC EXHIBIT

Anyone having scientific material that they wish to display at the state meeting should get in touch with the chairman of the Committee on Scientific Exhibit, care of the Indiana State Medical Association.

TRAP SHOOT

There will be no trap and skeet shoot this year due to the acute shortage of shells. The officers of the state trap and skeet association will be continued in office for the duration.

ROLLIN H. MOSER, *Chairman.*

GOLF

Due to the war no regular golf tournament will be held this year in connection with the 94th annual session of the Indiana State Medical Association. However, arrangements have been made for the use of the Highland Golf and Country Club for all members who wish to play. Tee time, 12:00 to 3:00.

HARRY KERR, *Chairman,*
Golf Committee.

INDIANA MEDICAL COLLEGE ALUMNI CLASS OF 1907

Members of the Indiana Medical College graduation class of 1907 will hold a luncheon at 12:00 o'clock on Wednesday, September twenty-ninth, at the Claypool Hotel.

HERMAN L. KRETSCHMER, M.D.
President-elect of the American Medical Association, Chicago.

PETER C. KRONFELD, M.D.
Chicago.

GEORGE J. THOMAS, M.D.
Director, Department of Anesthesia, University of Pittsburgh School of Medicine and Hospitals, Pittsburgh.

INSTRUCTIONAL COURSES—Tuesday, September 28

A new event upon the scientific program for this year's meeting will be a series of sixteen instructional courses to be held Tuesday, September 28, the opening day of the meeting at the Claypool Hotel.

The replies to the questionnaire of the July issue of THE JOURNAL indicated the topics listed below command the greatest interest; therefore, these sixteen courses are offered. Course discussion will be in a practical vein. Each course will accommodate twenty members. We therefore believe that you will be wise to use the attached application promptly for reservation of your tickets. Reservations will be made in the sequence of their arrival at our office—first come, first served. Registration cost for the series will be one dollar ($1.00) per course or three dollars ($3.00) for four courses.

11:00 A.M.	The Treatment of Pneumonia Course A	Rectal Analgesia in Obstetrics Course B	Office Examination of the Heart Course C	Recognition and Treatment of Early Tuberculosis Course D
2:00 P.M.	Recognition and Treatment of Common Skin Diseases Course E	Diagnosis and Treatment of Anorectal Conditions Course F	Immunization Techniques and Their Status for Children Course G	Neuro-psychiatric Aspects of Every Patient Course H
3:00 P.M.	The Management of the Diabetic Course I	Uses and Technique of Adhesive Taping of Sprains and Similar uses—Demonstrations Course J	Undulant Fever, Tularemia, Rocky Mountain Spotted Fever Course K	Office Examination of the Heart Course L
4:00 P.M.	Routine Pre-Natal Examination and Care Course M	Infant Feeding Problems Course N	Differential Diagnosis of Lower Abdominal Pain Course O	Recognition and Treatment of Common Skin Diseases Course P

Cut on the dotted line

ORDER BLANK

(Kindly indicate your 1st, 2nd and 3rd choice of each hour, using the course letter, as Course A or Course N. Please enclose check for one dollar per course or three dollars for four courses.)

	1st Choice	*2nd Choice*	*3rd Choice*
11:00 A.M.			
2:00 P.M.			
3:00 P.M.			
4:00 P.M.			

KINDLY PRINT YOUR NAME

Name

Address

The reserved tickets will be awaiting you at the registration desk.

COMMITTEE ON INSTRUCTIONAL COURSE,

GORDON W. BATMAN, M.D., *Chairman,*
RUSSELL A. SAGE, M.D.,
MARLOW W. MANION, M.D.

Send check and order blank to

Gordon W. Batman, M.D.,
723 Hume-Mansur Building,
Indianapolis 4, Indiana.

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SMOKER COMMITTEE: Chairman, C. E. Cox; Jason Weiss, Lester A. Smith, Harold M. Trusler, Irvine H. Page, Frederick G. McMillan, Roy V. Myers, Claude F. Otten, Joseph T. McCallum, Young D. Kim, Harry A. Jacobs, Oscar D. Ludwig, John A. Garrettson, John T. Day, Myron S. Harding, William B. Ferguson, Fredrick E. Jackson, L. H. Kornafel, Harry K. Langdon, Martin T. Patton, Charles F. Roland, Lewis D. Belden, Allan K. Harcourt, J. W. Jackson, Edward L. Lingeman, Kenneth G. Kohlstaedt, Byron Snider, Louis W. Spolyar, Carl B. Sputh, Jr.

GENERAL ENTERTAINMENT COMMITTEE: Chairman, Bert E. Ellis; Herbert F. Call, J. K. Berman, Lyman D. Eaton, E. Vernon Hahn, Emmett B. Lamb, Frederick G. McMillan, Arthur B. Richter, Ross C. Ottinger, John V. Thompson, Warren S. Tucker, Woodson C. Young, Matthew Winters, Albert M. Donato, Charles F. Gillespie, O. E. Carter, Thomas J. Beasley, Joseph J. Gramling, John W. Hendricks, E. B. Earp, W. Leland Dorman, Daniel L. Bower, J. L. Storey, George C. Stevens, Arvine E. Mozingo, Wendell C. Prough, E. B. Rinker, John S. Schechter, William Wise, Horace E. Crockett, T. N. Siersdorfer.

BANQUET COMMITTEE: Joint Chairmen, Foster Hudson and Ben Moore; John A. MacDonald, John K. Kingsbury, Paul T. Hurt, Frank M. Gastineau, Paul Merrell, William V. Woods, Marion R. Shafer, C. O. McCormick, Reid L. Keenan, Henry S. Leonard, Jerome E. Holman, Blan F. Deer, Robert Lee Glass, U. B. Hine, John A. Aspy, C. B. Bohner, Clyde Gray Culbertson, Lyman R. Pearson, Maurice H. Mentendiek, Wesley C. Ward, R. J. Anderson, Luther Williams, Charles V. Sage, Franklin A. Bryan, Adron A. Sullenger, Charles W. Roller, A. J. Schneider, F. A. Thomas, Richard C. Swan, John R. Thrasher.

NAVY OFFICERS ASSISTING WITH CONVENTION ARRANGEMENTS

Here are the local Navy officers to whom the members of the Indiana State Medical Association owe much for their help and cooperation in arranging the Navy part of the meeting: Lieutenant W. A. Chapman, Lieutenant Commander L. F. Brozo, and Lieutenant Commander Frank M. Hall.

Left to right: Lieut. Comdr. Brozo, Lieut. Comdr. Hall, and Lieut. Chapman.

Lieutenant Commander Hall, who handled the preliminary proceeding, has been transferred to a bigger job—with a promotion to full commander in the offing—with headquarters at Baltimore, Maryland. We hope that he will be able to return for the session he has done so much to make possible.

Lieut. Comdr. Phares

His successor, Lieutenant Commander Robert W. Phares, medical officer on Navy procurement duty here, is an Indiana physician who hailed from Greentown.

In addition, we wish to express our appreciation to Lieutenant E. M. Branigin and Chief F. E. White, of the local Navy Public Relations Department, for helping to compile the material regarding Indiana's Navy history and activities. We particularly wish to thank them for arranging for the splendid Navy pictures which appear in this issue.

WOMAN'S AUXILIARY

OFFICERS AND COMMITTEE CHAIRMEN OF THE WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

President.....Mrs. Arnold H. Duemling, Fort Wayne
President-Elect.....Mrs. James W. Baxter, Jr., New Albany
First Vice-President.....Mrs. William H. Howard, Hammond
Second Vice-President.....Mrs. Charles Viney, Logansport
Third Vice-President.....Mrs. Frederick Gifford, Indianapolis
Fourth Vice-President.....Mrs. M. A. Austin, Anderson
Treasurer.....Mrs. C. E. Munk, Kendallville
Recording Secretary.....Mrs. Thomas R. Owens, Muncie
Corresponding Secretary....Mrs. E. M. VanBuskirk, Fort Wayne
Councilor.....Mrs. Ernest O. Nay, Terre Haute
Parliamentarian.....Mrs. Charles F. Voyles, Indianapolis
Historian.....Mrs. U. G. Poland, Muncie

CHAIRMEN OF STANDING COMMITTEES

Archives.....Mrs. E. M. Shanklin, Hammond
Bulletin.....Miss Lucy E. Schuler, Kokomo
Exhibits.....Mrs. M. B. Vancleave, Terre Haute
Finance.....Mrs. Frank M. Gastineau, Indianapolis
Hygeia.....Mrs. George R. Dillinger, French Lick
Legislation.....Mrs. F. B. Wishard, Anderson
Organization (Northern).....Mrs. Herbert R. Ray, Fort Wayne
Organization (Southern).....Mrs. James W. Baxter, Jr., New Albany
Pioneer Memorial.....Mrs. O. G. Pfaff, Indianapolis
Press and Publicity.....Mrs. Emmett B. Lamb, Indianapolis
Program.....Mrs. Edgar N. Mendenhall, Fort Wayne
Public Relations.....Mrs. William E. Tinney, Indianapolis

CONVENTION COMMITTEES—WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

Convention Arrangements.....Mrs. W. N. Wishard, Jr., Indianapolis
Registration and Credentials.....Mrs. John Carmack, Indianapolis
Convention Rules of Order.....Mrs. W. H. Howard, Hammond
Resolutions.....Mrs. Fred Gifford, Indianapolis
Nominations.....Mrs. F. B. Wishard, Pendleton

Revisions.....Mrs. Charles F. Voyles, Indianapolis
Timekeepers.....Mrs. Harvey L. Murdock, Fort Wayne
Mrs. A. W. Ratcliffe, Evansville
Press and Publicity.....Mrs. Emmett B. Lamb, Indianapolis

AUXILIARY MEMBERS, ATTENTION!

A most cordial invitation is extended to all Auxiliary members and the wives and guests of physicians to be present at the annual session of the Indiana State Medical Association in Indianapolis, September 28 and 29.

Headquarters and registration will be in the Riley Room of the Claypool Hotel. Please register early and obtain your badge and program. Tickets for the dinner and breakfast may be purchased at the registration desk.

All meetings will convene at the time scheduled. Please be prompt.

Mrs. A. H. Duemling, *President,*
Woman's Auxiliary to the
Indiana State Medical Association.

Women's Entertainment

Tuesday, September 28, 1493

9:00 a.m. Registration, Riley Room, Claypool Hotel.

1:00 p.m. Board of Directors meeting, Club Room, ninth floor, Claypool Hotel.

4:00 p.m. Reception and tea, honoring Mrs. Eben J. Carey, Wauwatosa, Wisconsin, president, Womans Auxiliary to the American Medical Association, Tea Room, L. S. Ayres and Company.

6:30 p.m. Dinner in honor of past State Auxiliary presidents, Indianapolis Athletic Club.

Speaker: MRS. EBEN J. CAREY, Wauwatosa, Wisconsin.

(Three other interesting speakers—to be announced later.)
(Tickets on sale.)

Wednesday, September 29, 1943

8:15 a.m. Annual Auxiliary breakfast and business meeting, Tea Room, L. S. Ayres and Company. (Pearl Street entrance, south building.) (Tickets on sale.)

ORDER OF BUSINESS

(2 min.) *Call to order*—Mrs. A. H. Duemling, Fort Wayne, president, Woman's Auxiliary to the Indiana State Medical Association.

(1 min.) *Pledge of allegiance.*
Invocation—Mrs. M. A. Austin, Anderson, vice-president.

(3 min.) *Welcome*—Mrs. G. W. Gustafson, Indianapolis, president, Woman's Auxiliary to the Indianapolis Medical Society.

(3 min.) *Greetings from National Auxiliary*—Mrs. Eben J. Carey.

(3 min.) *Greetings from Indiana State Medical Association*—C. H. McCaskey, M.D., Indianapolis, president, Indiana State Medical Association.

(2 min.) *Response*—Mrs. Ernest O. Nay, Terre Haute, councilor.
Introduction of honored guests.

(8 min.) *President's message.*

(4 min.) *In Memorian*—Mrs. M. B. VanCleave, Terre Haute.
Rules of Convention—Mrs. W. H. Howard, Hammond, vice-president.

(2 min.) *Roll call of County Auxiliaries*—Mrs. John Carmack, Indianapolis.

(2 min.) *Minutes of preceding annual session*—Mrs. T. R. Owens, Muncie, recording secretary.
Reports of:

(1 min.) Corresponding secretary, Mrs. E. M. VanBuskirk, Fort Wayne.

(4 min.) Treasurer, Mrs. C. E. Munk, Kendallville.

(1 min.) Auditors, Mrs. Emor L. Cartwright, Fort Wayne.

(2 min.) Historian, Mrs. U. G. Poland, Muncie.
Chairmen of Standing Committees:

(2 min.) Archives, Mrs. E. M. Shanklin, Hammond.

(2 min.) Bulletin, Miss Lucy E. Schuler, Kokomo.

(2 min.) Exhibits, Mrs. M. B. VanCleave, Terre Haute.

(2 min.) Finance, Mrs. F. M. Gastineau, Indianapolis.

(2 min.) Hygeia, Mrs. G. R. Dillinger, French Lick.

(2 min.) Legislation, Mrs. F. B. Wishard, Pendleton.

(2 min.) Organization, Mrs. H. A. Ray (northern), Fort Wayne; Mrs. J. W. Baxter, Jr. (southern), New Albany.

(2 min.) Pioneer Memorial, Mrs. O. G. Pfaff, Indianapolis.

(2 min.) Press and Publicity, Mrs. Emmett B. Lamb, Indianapolis.

(2 min.) Program, Mrs. E. N. Mendenhall, Fort Wayne.

(2 min.) Public Relations, Mrs. William E. Tinney, Indianapolis.

(3 min.) *High Lights on National Session, June 7-9*—Mrs. E. N. Mendenhall, Fort Wayne.
Revisions—Mrs. Charles F. Voyles, Indianapolis, chairman.

(5 min.) *Resolutions*—Mrs. Frederick Gifford, Indianapolis, vice-president.

(2 min.) *Registration*—Mrs. Charles Viney, Logansport, vice-president.

(4 min.) *Report of Nominating Committee*—Mrs. F. B. Wishard, chairman.

(2 min.) *Election of officers.*

(4 min.) *Installation of officers*—Mrs. Charles F. Voyles, Indianapolis, parliamentarian.

(8 min.) *Inaugural address*—Mrs. J. W. Baxter, Jr., New Albany.
New Business.
Adjournment.

6:30 p.m. Annual Dinner in conjunction with the Indiana State Medical Association, Indianapolis Athletic Club.

OFFICIAL CALL TO THE HOUSE OF DELEGATES

The next annual session of the Indiana State Medical Association will be held at Indianapolis, September 28, 29 and 30, 1943.

The House of Delegates will be constituted as follows: Marion County, fourteen delegates; Lake County, five delegates; Allen County, three delegates; St. Joseph County, three delegates; Vanderburgh County, three delegates; Daviess-Martin, Dearborn-Ohio, Delaware-Blackford, Fayette-Franklin, Fountain-Warren, Jasper-Newton, Madison, Parke-Vermillion, Tippecanoe, Vigo and Wayne-Union County societies, each two delegates; the other sixty-seven county societies, each one delegate; thirteen councilors; the ex-presidents, namely: C. S. Bond, W. H. Stemm, W. R. Davidson, E. M. Shanklin, Charles N. Combs, George R. Daniels, Charles E. Gillespie, Angus C. McDonald, A. B. Graham, F. S. Crockett, J. H. Weinstein, E. E. Padgett, R. L. Sensenich, Herman M. Baker, E. M. VanBuskirk, Karl R. Ruddell, A. M. Mitchell and M. A. Austin. In addition to these, the president, secretary and treasurer, all without power to vote except in case of a tie, when the president shall cast the deciding vote.

Blank credentials have been sent by the secretary to each county society, and the properly executed credentials should be mailed to Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis 4, or brought to the session. No delegates will be seated unless wearing the official badge.

The House of Delegates will convene promptly at 4:00 P. M., Tuesday, September 28, in the Assembly Room, eighth floor, of the Claypool Hotel, and again at 7:00 A. M., Thursday morning, September 30, in the Chateau Room, first floor, of the Claypool Hotel (breakfast meeting).

The order of business will be as follows:

1. Call to order by the president.
2. Roll call and seating of qualified delegates.
3. Reading of the minutes of previous meetings.
4. Appointment of reference committees.
5. Report of executive secretary.
6. Report of the treasurer.
7. Report of the chairman of the council.
8. Reports of standing and special committees:
   (1) Credentials.
   (2) Executive Committee.
   (3) Arrangements.
   (4) Scientific Work.
   (5) Public Policy and Legislation.
   (6) Bureau of Publicity.
   (7) Civic and Industrial Relations.
   (8) Medical Education and Hospitals.
   (9) Journal Publication.
   (10) Secretaries' Conference.
   (11) Permanent Study Committee on Health Insurance.
   (12) Necrology.
   (13) Study of High School Athletics.
   (14) Mental Health.
   (15) State Fair.
   (16) Prevention of Traffic Accidents.
   (17) Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health.
   (18) Director of Research on Sickness Insurance.
   (19) Historian.
   (20) Liaison Committee of the Division of Services for Crippled Children.
   (21) Auditing.
   (22) Control of Cancer.
   (23) Venereal Disease.
   (24) Industrial Health.
   (25) Study of Cultists and Irregular Practitioners.
   (26) Indiana Inter-Professional Health Council.
   (27) Anti-Tuberculosis.
   (28) Conservation of Vision.
   (29) Hard of Hearing.
   (30) War Participation.
   (31) Physical Therapy.
   (32) Medical Relief.
   (33) Civilian Defense.
   (34) OPA Medical Advisory Committee.
9. Reading of Communications.
10. Reading of memorials and resolutions.
11. Unfinished business.
12. New business.
13. Adjournment.

The election of officers will be the first order of business at the second meeting of the House of Delegates. In addition to the regular officers, the terms of the following officers expire December 31, 1943, and their successors must be elected at the session: Delegates to the American Medical Association to succeed Don F. Cameron, Fort Wayne, and F. S. Crockett, Lafayette, and alternates, Norman M. Beatty, Indianapolis, and A. M. Mitchell, Terre Haute.

Delegates from the third, sixth, ninth and twelfth districts are reminded that the terms of their councilors will expire December 31, 1943, and new councilors should be elected to succeed the following:

Third District:	W. H. Garner, New Albany.
Sixth District:	Samuel Kennedy, Shelbyville.
Ninth District:	F. T. Romberger, Lafayette.
Twelfth District:	H. L. Murdock, Fort Wayne.

Some of these elections already may have been held, but they should be reported to the House of Delegates at this session for confirmation.

THOMAS A. HENDRICKS,
Executive Secretary.

Reports of Officers and Committees

COMMITTEE ON CREDENTIALS

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Committee on Credentials wishes to report that there are no questions pending at this time and that there is no unfinished business.

J. W. Bowers, Lt. Col., M. C.
W. E. Amy, M.D.

EXECUTIVE SECRETARY

House of Delegates,
Indiana State Medical Association.

Gentlemen:

With the number of physicians in the armed forces increasing daily and with the burden upon doctors in civilian life ever mounting, it is becoming more and more difficult to keep local medical organizations active. Some reasons as to why medical organizations should keep active may possibly be obtained from the following letter written to a physician by your secretary in answer to questions in regard to the value of the state medical association:

"Dear Doctor ——:

"It was mighty good of you to take the time and trouble to write us your opinion in regard to the Indiana State Medical Association, and such a letter, even though it is critical, is really appreciated, for it isn't when a physician tells what he is thinking that hurts, but when he is too busy, or too careless, or too indifferent to write—that's really bad. I am going to bring your letter to the attention of the members of the Executive Committee of the state association at their next meeting, and I'll let you know if they have any comments or suggestions in addition to what is in this letter.

"I can well understand why you may feel that the payment of dues may not be worth while if your local county medical society is not active, for it is through each local county society that the state and the American medical organizations best function. Indeed, at this time of emergency, one of the main purposes of the national and state associations is to see that local medical societies keep their county organizations intact and that they do not die. Due to the fact that so many physicians are away in service, in some parts of the state several county societies have joint meetings. Perhaps the —— County Medical Society could do that for one or two meetings a year.

"The officers and Executive Committee of your state association feel that today the first obligation of the Indiana State Medical Association is to the 1180 physicians from this state who are serving in the armed forces, and no time or effort should be spared to help these men, many of whom are overseas and several of whom are in enemy prison camps. These men in service pay no dues, yet they are maintained as members in good standing in their county society, the state association, and the A.M.A. They receive The Journal of the state association and hold all their rights and privileges as members of their medical organizations. Your official groups, the Council and the Executive Committee, and the committees of the association have spared nothing in an attempt to keep touch with the men in the armed forces and, whenever possible, to be of service to them. Each month each Indiana physician in the Army and Navy receives a letter from the state society, those overseas getting special V-mail letters. These letters are greatly appreciated, coming from such noted Hoosiers as Booth Tarkington, George Ade, Meredith Nicholson, Governor Henry Schricker, and Wendell Willkie.

"The war has placed a heavy responsibility upon the headquarters office. The Procurement and Assignment job alone has not been an easy one. It has been carried on and entirely financed by the state association. This has been done because it was thought that we in Indiana could better maintain our own independence if we did the job ourselves and bore the expense rather than depend upon the Federal government. Records, surveys, and even individual cards on each doctor have been necessary. Wars are not easy, even on the home front, as you undoubtedly know.

"With so many doctors away from home, the cultists, of course, made a most strenuous effort in the last session of the legislature to gain a legal foothold in Indiana. They had plenty of money. A chiropractor was the ranking member of the House Committee on Public Health. Thanks to the fine work of those societies which had kept an active organization, all cult bills—some half dozen altogether—were defeated. The cultists are already organizing for the 1945 session, and unless we can count on the physicians who are left at home for support, we may not be successful. Incidentally, according to the House roll call, the representatives from ——— county voted consistently with the cultists.

"The state association has made every attempt to maintain its activities 100 per cent, despite the fact that the annual income from members has

been cut $11,800 as a result of the men in service paying no dues. The annual meeting is to be held in coöperation with the headquarters staff of the Ninth Naval District; the industrial health course held in Indianapolis gave a number of physicians the opportunity to make worth-while industrial connections, and most of the committees of the association are functioning.

"From the journals you know of the Beveridge Plan, the American Planning Board report and the newly-introduced Wagner-Murray Bill in Congress, which calls for great changes in the practice of medicine, which would affect every physician. Your officers are doing everything possible to keep informed, to inform each Indiana physician, and to see that our representatives and senators in Congress are informed of the opposition to any parts of these plans and measures which would socialize and regiment medicine.

"Each physician in good standing is, of course, receiving medical defense as in the past and although the very peace of mind that it gives a man to know his good name will be defended if he is sued may not seem important, nevertheless, it gives one a very comfortable feeling and is a handy thing to have when one gets into a malpractice suit.

"You speak of the dues. As a matter of fact, as I recall, the dues of the Indiana State Medical Association are lower than those of any other state of comparable size, some state dues being $35.00 a year, and some state societies finding it necessary to make an assessment to keep the organization functioning while so many of their men are away. So, as state dues run, ours do not seem to be out of line.

"You say you have heard a number of complaints from physicians throughout the state regarding 'the enormous dues for the kind of service we are deriving therefrom.' I know of very few such complaints, but I do know that never before have so many physicians, both on the home front and in the service, done so much for humanity and for their medical organization. I know that many physicians, some of the busiest men in the profession, are sitting long, endless hours in conferences and committee meetings with national and state officials, Army officers and civilian groups, working out ways and means to win this war and to get medical service to Army and civilian population. I know of dozens of doctors who took time out and made trips to Indianapolis to tell their legislators what it would mean to the health of the citizens of Indiana and to the profession to allow Indiana to become a dumping ground for cultists and quacks. I do know that the Executive Committee and other committees spend many long evenings and many Sundays, both in summer and in winter, upon these questions. In fact, sometimes there are more than fifty items on the agenda dealing with these problems. And why are they willing to do all this? Is it pride of country? Yes. Is it state pride? Yes. Is it pride of profession? Yes. And it is also because they want to be sure that the 1,180 Indiana physicians who are in service may return home after the war is over and find an active, functioning county, state and national medical organization, ready and willing as always to fight for the welfare of the public and the profession.

"I have gone somewhat into detail in answering your letter, but we feel that any physician interested enough to write us about state organization matters during these busy times should receive a comprehensive answer. We have deeply appreciated the active interest you have taken in the past, and the contribution to the medical organization of Indiana you have made as a member of the House of Delegates and as an officer of your local society."

In Memory of an Old Friend

Many old faces will be missing when the House of Delegates convenes. None will be missed more than the friendly, encouraging countenance of Dr. Walter F. Carver, of Albion, who served for so many years as chairman of the Credentials Committee. Somehow it will not be quite the same without his booming voice calling the roll and tabulating the election returns at the final breakfast meeting.

THOMAS A. HENDRICKS,
Executive Secretary.

TREASURER

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The accompanying report prepared by the George S. Olive and Company, certified public accountants, gives our financial statement for the period ending December 31, 1942.

Since the last meeting of the House of Delegates, upon the advice of the Executive Committee, $3,000.00 from the general fund and $2,000.00 from the medical defense fund were invested in Defense Series G bonds. These bonds are listed in the respective accounts in the following statement.

A. F. WEYERBACHER, M.D.,
Treasurer.

EXHIBIT A

INDIANA STATE MEDICAL ASSOCIATION

ANALYSIS OF DECREASE IN ASSETS, ALL FUNDS, YEAR ENDED DECEMBER 31, 1942

Total Assets, December 31, 1942—Exhibit B	$59,892.70
Total Assets, December 31, 1941	60,063.99
Net Decrease	$ 171.29

Arising from the following sources:			
Excess of operating cash disbursements over operating cash receipts, general fund, year ended December 31, 1942:			
Receipts—Exhibit C	$35,718.10		
Disbursements—Exhibit C	37,380.02		
Excess of operating disbursements		**$ 1,661.92**	
Excess of operating receipts over operating disbursements, medical defense fund, year ended December 31, 1942:			
Receipts—Exhibit E	2,687.25		
Disbursements—Exhibit E	2,685.70		
Excess of operating receipts		1.55	
Excess of operating disbursements over operating receipts, THE JOURNAL of The Indiana State Medical Association, year ended December 31, 1942:			
Receipts—Exhibit D	17,922.81		
Disbursements—Exhibit D	18,908.73		
Excess of operating disbursements		**985.92**	
Add:			
Increase in investments:			
U. S. Savings bonds		7,000.00	
Less:			
Reduction in investments:			
Beachton Court Apartments bonds, final liquidation	**1,815.60**		
Rokeby Apartment Hotel bonds, final liquidation	**307.20**		
Balance of book value, after final liquidation, for Beachton and Rokeby bonds, charged off	**2,402.20**		
		4,525.00	
Total Net Decrease			**$ 171.29**

EXHIBIT B

STATEMENT OF ASSETS, ALL FUNDS, AT DECEMBER 31, 1942

General Fund			
Cash on deposit—Exhibit C		$10,975.14	
Petty cash fund		200.00	
Investments:			
Marion County Flood Prevention bonds	$ 3,000.00		
Indianapolis City Hospital bonds	5,000.00		
U. S. Treasury bonds	13,000.00		
U. S. Savings bonds	5,000.00		
		26,000.00	
Total general fund assets			$37,175.14
The Journal of The Indiana State Medical Association			
Cash on deposit—Exhibit D			2,705.34
Medical Defense Fund			
Cash on deposit—Exhibit E		5,012.22	
Investments:			
Marion County Flood Prevention bonds	2,000.00		
U. S. Treasury bonds	8,000.00		
U. S. Savings bonds	2,000.00		
U. S. Baby bonds	3,000.00		
		15,000.00	
Total medical defense fund assets			20,012.22
Total Assets, All Funds—Exhibit A			$59,892.70

EXHIBIT C

COMPARATIVE STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEARS ENDED DECEMBER 31, 1942, AND DECEMBER 31, 1941

	Year Ended Dec. 31, 1942	Year Ended Dec. 31, 1941	Increase **Decrease**
Cash Balance at Beginning of Year	$12,637,06	$14,161.43	**$1,524.37**
Receipts			
Membership dues	29,621.83	30,224.00	**602.17**
Income from exhibits	3,027.50	5,390.00	**2,362.50**
Petty cash refund contra	.....	300.00	**300.00**
Orange County Medical Society, on 1940 convention	.....	233.70	**233.70**
Indianapolis Society refund of convention expense	.....	136.54	**136.54**
Miscellaneous refunds	1.88	20.04	**18.16**
Beachton Court Liquidation Trust distribution	1,815.60	40.00	1,775.60
Rokeby Liquidation Trust distribution	307.20	.....	307.20
Refunds of traveling expense	222.84	.....	222.84
Interest income:			
U. S. Treasury bonds	368.75	368.75	.....
U. S. Savings bonds	25.00	.....	25.00
Indianapolis, Indiana, City Hospital bonds	200.00	200.00	.....
Marion County, Indiana, Flood Prevention bonds	127.50	127.50	.....
Total receipts	$35,718.10	$37,040.53	**$1,322.43**
BEGINNING BALANCE PLUS CASH RECEIPTS	$48,355.16	$51,201.96	**$2,846.80**
Disbursements			
Transfer of applicable portion of dues to THE JOURNAL of The Indiana State Medical Association—Exhibit D	$ 6,494.50	$ 6,428.00	$ 66.50
Medical defense fund—Exhibit E	2,364,75	2,337.75	27.00
Headquarters' office expense	10,680.74	10,259.73	421.01
Publicity committee	250.81	239.48	11.33
Public policy	220.71	1,554.30	**1,333.59**
Council	6,265.60	6,140.66	124.94
Officers	439.35	642.79	**203.44**
Rent	500.00	500.00	.....
Annual session	1,995.22	4,945.26	**2,950.04**
Miscellaneous committees	1,404.67	1,383.49	21.18
Postgraduate study	15.50	50.82	**35.32**
Federal O.A.B. tax	60.67	57.92	2.75
Military dues refunds	1,590.00	372.50	1,217.50
Petty cash refund contra	.....	300.00	**300.00**
Other refunds	25.00	20.00	5.00
Securities purchased	5,000.00	3,332.20	1,667.80
Sundry	72.50	.....	72.50
Total disbursements	$37,380.02	$38,564.90	**$1,184.88**
Cash Balance at End of Year *(Exhibit B)*	$10,975.14	$12,637.06	**$1,661.92**

EXHIBIT D

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEAR ENDED DECEMBER 31, 1942

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

BALANCE, JANUARY 1, 1942		$ 3,691.26
Receipts		
Subscriptions—members—Exhibit C	$ 6,494.50	
Subscriptions—non-members	131.00	
Advertising	10,984.14	
Collections on accounts receivable	190.00	
Single copy sales	34.75	
Electrotypes	88.42	
Total Receipts—Exhibit A		17,922.81
		21,614.07
Disbursements		
Editorial and management salaries	$ 7,838.15	
Printing	8,410.89	
Office postage	215.00	
Journal postage	531.33	
Press clippings	106.66	
Electrotypes	446.94	
Office rent and light	244.43	
Office supplies	450.16	
Advertising commissions	85.50	
Extra help—reporting	390.17	
Federal O.A.B. tax	51.82	
Expenses—editor and editorial board	90.18	
Copyright fee	24.00	
Surety bond	20.00	
Sundry	3.50	
Total disbursements—Exhibit A		18,908.73
Balance, December 31, 1942—Exhibit B		$ 2,705.34

EXHIBIT E

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEAR ENDED DECEMBER 31, 1942

MEDICAL DEFENSE FUND

BALANCE, JANUARY 1, 1942			$5,010.67
Receipts:			
Transfer of applicable portion of dues from the general fund—Exhibit C		$2,364.75	
Interest income:			
U. S. Treasury bonds	$237.50		
Marion County, Indiana, Flood Prevention bonds	85.00		
		322.50	
Total receipts—Exhibit A			2,687.25
			7,697.92
Disbursements:			
Attorney's retainer fee		$ 600.00	
Treasurer's bond		15.00	
Attorney's expenses and single day fee to attend Federation of State Medical Board		70.70	
U. S. Savings bonds		2,000.00	
Total disbursements—Exhibit A			2,685.70
Balance, December 31, 1942—Exhibit B			**$5,012.22**

CHAIRMAN OF THE COUNCIL

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Reports of the business which has been considered and acted upon by the Council during the past year have been published in the November, 1942, and the February, 1943, issues of THE JOURNAL. Hence, your chairman at this time presents only a brief summary of some of the outstanding matters which have been discussed and the actions taken by the Council.

First Meeting, French Lick, September 29, 1942

The roll call showed eleven councilor districts represented when the meeting was called to order by Dr. Floyd T. Romberger, chairman, at 12:45 P.M. at the French Lick Springs Hotel, French Lick. In addition to the councilors, the members of the Executive Committee and several guests were present.

Councilor district reports as printed in the September, 1942, JOURNAL and the Handbook of the House of Delegates were accepted unanimously.

Resignation of Dr. O. O. Alexander

The letter of resignation from Dr. O. O. Alexander, Terre Haute, councilor of the Fifth District, suggesting that Dr. A. M. Mitchell, of Terre Haute, represent the Fifth District, was read and accepted by the Council. The Council directed the executive secretary to express thanks and appreciation of the state medical association for the long and beneficent service rendered by Dr. Alexander upon behalf of organized medicine.

Letter to Major George Dillinger

Major George Dillinger, of French Lick, who was the General Convention Arrangements Chairman, was called to the Army ten days before the meeting, his place being taken by Dr. C. E. Boyd of West Baden. The Council suggested that a letter be written thanking Major Dillinger for his efforts during the past year in making arrangements for the annual session.

The Lashley Case

Dr. Barclay made a motion that unless Dr. Lashley should make a further appeal, nothing further should be done in the matter by the Council.

Physicians' Universal Military Service

Report made that Dr. Romberger's plan had been taken up with the Surgeon General's Office by Dr. C. J. Clark, and that a further report would be made at a later date.

Streamlined Meeting

Resolution introduced by Dr. Shanklin that for the present national emergency the annual meeting of the state medical association should be streamlined, and that all other present activities of the Indiana State Medical Association should be continued as usual, "subject to such changes as may arise from emergencies." This resolution was to be presented to the House of Delegates.

Speakers for County Medical Society Meetings

Speakers for county medical society meetings discussed, and it was suggested that the Committee on Medical Education coöperate with the Bureau of Publicity in supplying these speakers.

Planned Parenthood Resolution

This resolution was presented to the Council by the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health. The Council took no action on this resolution as it was felt that this was a subject for consideration of the House of Delegates.

Care of Wives and Children of Service Men

Obstetrical care of wives and pediatric care of children of service men discussed by the Council. This was a subject for the House of Delegates.

JOURNAL Staff Elections

Dr. E. M. Shanklin was re-elected unanimously as editor of THE JOURNAL for 1943. The following members were elected to serve on the Editorial Board for three years:

Dr. Ernest Rupel, Indianapolis.
Dr. Harry W. Garton, Fort Wayne.

Executive Committee Report

Dr. C. A. Nafe, chairman of the Executive Committee, made a brief report on the committee's activities.

Traffic Accident Resolution

Dr. Will A. Thompson, chairman of the Committee on Prevention of Traffic Accidents, presented a resolution to the Council which provided that reports be made to the Indiana State Board of Health, by name, "of persons under the care of physicians and institutions, private or public, for diseases or conditions resulting in periodic or occasional seizures of unconsciousness" and also providing "that the Indiana State Board of Health hold this information confidential, except that it be empowered to supply such information to the Department of Public Safety for the proper control of such persons as drivers, and except that it may be furnished by order of the court." This was referred to the House of Delegates.

The Council then held a short executive session.

Second Meeting, French Lick, October 1, 1942

Immediately upon adjournment of the final meeting of the House of Delegates, the second meeting of the Council was called, the roll call showing eleven councilors present along with the officers of the state medical association and the members of the Executive Committee.

Military Hospitals to Receive JOURNAL

The Council authorized the distribution of THE JOURNAL of the Indiana State Medical Association free of charge to all "named" military hospitals.

Midwinter Meeting, Indianapolis, January 10, 1943

Upon the call of Dr. Floyd T. Romberger, Lafayette, chairman, the Council convened at 10:15 A.M., January 10, 1943, at the Columbia Club, Indianapolis. The roll call showed ten councilors and officers and members of the Executive Committee of the state medical association present.

Reports by Districts

Each councilor made a brief report of the activities in his district. Dr. Romberger, councilor of the Ninth District, said, "The medical situation has been acute because half of our active practicing physicians are in the service. However, by cutting the corners and giving a less *de luxe* type of service, the doctors who still remain have given very good service."

Reports of Officers

Short reports were made by Dr. M. A. Austin, president 1942; Dr. C. H. McCaskey, president 1943; Dr. J. T. Oliphant, president-elect, and Dr. A. F. Weyerbacher, treasurer.

Dr. E. M. Shanklin, editor of THE JOURNAL, was unable to be present because of illness, and his report was read by the executive secretary. Report made that THE JOURNAL was being sent free of charge to the forty-two "named" military hospitals. Report also made that the industrial health number of THE JOURNAL was named by *The Medical Annals of the District of Columbia* as "the best individual medical publication of any issue in the country during the year."

Physicians' Universal Military Service

Due to the fact that the Procurement and Assignment Service had been set up, Dr. Romberger's plan for the selection of physicians for military service was tabled at this time.

Plans for 1943 Annual Session

A preliminary report upon the proposals and suggestions for the annual session to be held in Indianapolis, September 28, 29 and 30, 1943, was presented to and approved by the Council. This plan calls for the elimination of the final scientific

meeting on Thursday morning as well as the elimination of the golf tournament and trap shoot.

The War

Report made that Indiana had exceeded its quota of physicians to the armed forces by 26 per cent.

Arrangements were made for stickers on physicians' automobiles.

The Council discussed the pre-military examination of high school students, and a suggestion was made that this be arranged by local school authorities with local county medical societies.

Legislative Matters

The Council discussed the pre-marital blood examination law and also the introduction of an immunization bill.

Nominations for Editorial Board

The following nominations were received for the Editorial Board: Drs. M. A. Austin, Anderson, and Minor Miller, Evansville. Two places are to be filled on the Editorial Board at the first meeting of the Council on September 28, 1943.

Elections for 1943

Dr. C. A. Nafe and Dr. E. O. Asher were re-elected members of the Executive Committee for 1943.

Dr. Floyd T. Romberger was unanimously re-elected chairman of the Council for 1943.

Luncheon Meeting

At the luncheon meeting reports were made by the following committee chairmen and guests: Dr. C. A. Nafe, chairman of Executive Committee, who discussed the possibility of having a group malpractice medical defense insurance policy; Dr. Thurman B. Rice, secretary of the State Board of Health, who told of the difficulty of obtaining trained personnel; Dr. C. R. Bird, chairman of the War Participation Committee, who introduced Major Glen W. Lee, medical director of the Indiana Selective Service System; Dr. W. D. Gatch, dean, Indiana University School of Medicine, who spoke of the problems of medical education; Dr. Clyde G. Culbertson, chief of the Bacteriological Laboratory, State Board of Health; Dr. Gordon W. Batman, chairman of the Committee on Convention Arrangements, who suggested that a series of instructional courses be instituted at the next state meeting (motion for such courses passed by Council); Dr. C. L. Rudesill, chairman of the Committee on Scientific Work; Dr. H. G. Hamer, chairman of the Bureau of Publicity and delegate to the A.M.A.; Dr. Norman M. Beatty, and Dr. J. William Wright, co-chairmen of the Legislative Committee; Dr. H. S. Leonard, chairman of the Civilian Defense Committee; Dr. Herman M. Baker, chairman of the Committee on Medical Education and Hospitals; Dr. A. M. Mitchell, chairman of the Committee on Secretaries' Conference; Dr. E. S. Jones, chairman of the Committee on Industrial Health; Dr. E. O. Asher, chairman of the Medical Relief Committee; Dr. W. U. Kennedy, director of Research on Sickness Insurance; Dr. H. F. Nolting, chairman of the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health; Dr. W. D. Little, chairman of the Committee on Study of High School Athletics; Dr. Will Thompson, chairman of the Committee on Prevention of Traffic Accidents; Dr. C. W. Rutherford, State Supervising Ophthalmologist, State Department of Public Welfare, who spoke on trachoma; Albert Stump, attorney for the association, and Rollen W. Waterson, executive secretary of the Lake County Medical Society.

FLOYD T. ROMBERGER, M.D., *Chairman.*

REPORTS FROM DISTRICT COUNCILORS

FIRST COUNCILOR DISTRICT

The meeting of the First District Medical Society was held in Evansville on June 8, 1943, at which time Dr. P. S. Pelouse, associate professor of urology at the University of Pennsylvania, was the guest speaker. His subject was "Gonorrhea." The following officers were elected: president, Dr. Robert Viehe, Evansville; vice-president, Dr. Austin Marchand, Haubstadt; and secretary, Dr. William Jenkinson, Mount Vernon.

I. C. BARCLAY, M.D., *Councilor.*

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SECOND COUNCILOR DISTRICT

The affairs of the Second District have progressed during the past year without any unusual happening. All members are too busy to worry much about the present or the future.

There has been no instance of neglect in medical service in the District. Every injured or ill man, woman or child has received attention.

There is no telling what the public may do to the doctor in the future, but it is a certainty that the medical men of the Second District have delivered their best to the armed forces, the government and the civilian.

H. C. WADSWORTH, M.D., *Councilor.*

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THIRD COUNCILOR DISTRICT

The physicians of the Third District Medical Society have gone to war. One-third of its members are in the armed forces, and most of the actual practice has been taken over by the older physicians and the younger doctors who have physical handi-

caps. The men in the armed forces are in every theatre of war. The doctors at home have taken over the added work and in many instances are working harder and longer hours than those away, yet there is no complaining among them or among the people they serve. A recent survey among civilians and civic organizations found only isolated instances in which adequate and prompt medical attention was not available. There is a friendly spirit among the physicians, and even though the activities of the association have been temporarily neglected the traditional spirit of sacrifice of the medical profession is apparent everywhere. The men at home will not let the men at battle stations down, and the Third District and the entire medical association should be proud of the doctors who have left their home, friends and practice to do their full share in whatever assignment they may be called on to do.

WILLIAM H. GARNER, Major, M.C., *Councilor.*

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FOURTH COUNCILOR DISTRICT

The district and county organizations have functioned well, although not quite as many county society meetings were held as usual. Medical care, especially obstetrical care, became quite a problem in a few localities because of illness among remaining physicians. However, the fact that no serious epidemics occurred helped considerably in overcoming the situation.

The district meeting was held at Greensburg, May 19. It proved to be a good meeting and was well attended, even without golf and the usual "eats."

Dr. Stemm, North Vernon, was elected president for 1944, and Dr. Henning, Madison, vice-president.

J. C. ELLIOTT, M.D., *Councilor.*

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FIFTH COUNCILOR DISTRICT

In spite of the decrease in the number of physicians in the counties, each county society is carrying on in a very creditable manner.

The physicians in the Parke-Vermillion County Society functioned very well during the flood last spring by caring for the victims at the Clinton hospital.

The Fifth District did not hold a spring meeting, but there will probably be one in October.

A. M. MITCHELL, M.D., *Councilor.*

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SIXTH COUNCILOR DISTRICT

No meeting of the Sixth District Medical Society will be held this year. This decision was reached because of the shortage of members and the trouble of getting a suitable program.

At the meeting held at Liberty in 1942 we had a splendid program and had an attendance of about fifteen. We did not think it best to have this repeated at present.

I have not kept in as close touch as usual with the counties of the Sixth District because of the gasoline shortage and the fact that my chauffeur was drafted into the Army, and I have not secured another. However, from the reports that I have received from the county medical societies I am sure that all of them are functioning normally and doing good work.

SAMUEL KENNEDY, M.D., *Councilor.*

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EIGHTH COUNCILOR DISTRICT

The respective county societies comprising the Eighth District are continuing regular meetings with good attendance.

Because of the increased burden being carried by its members as a result of the present emergency, the officers of the district decided to postpone the annual meeting which was usually held in early summer. They are planning a meeting for this fall, the date to be announced later.

E. H. CLAUSER, M.D., *Councilor.*

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NINTH COUNCILOR DISTRICT

The Ninth District Medical Society held its annual meeting at Lafayette, May 20, with the Tippecanoe County Society acting as host.

While the attendance was relatively small, quite naturally in these days, yet the scientific program was educative and instructive. The speakers were: Dr. E. S. Jones, of Hammond; Dr. George S. Bond, of Indianapolis; Dr. C. H. McCaskey, of Indianapolis, and Thomas A. Hendricks, our state association secretary. All were well received.

The success of the meeting was due to the officers, Dr. Earl VanReed, Dr. Gordon A. Thomas, Dr. J. C. Burkle, and their capable committees.

The Montgomery County Society will entertain the district society in 1944, at Crawfordsville, on May 24. The officers for 1944 are: Dr. Wempel Dodds, president; Dr. Geo. A. Collett, vice-president; and Dr. H. D. Kindell, secretary-treasurer.

FLOYD T. ROMBERGER, M.D., *Councilor.*

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TENTH COUNCILOR DISTRICT

The Spring meeting of the Tenth District Medical Society was held at the Woodmar Country Club, in Hammond, on May 12, 1943. This was a dinner meeting and well attended. The speaker, Dr. George W. Scupham, Professor of Internal Medicine at the Northwestern University Medical School, chose the common and interesting subject of "Headaches," of which there undoubtedly are a large variety not usually mentioned in didactic courses. His discussion was well presented and received. After all, when a busy practitioner can

and will take time out in these times, to come some distance to address a medical meeting, there should be some sort of distinguished service medal of appreciation awaiting him. Preceding Doctor Scupham's address, a colored motion picture was shown, through the courtesy of Sharp and Dohme, on "Lyovac—the Story of Human Blood Plasma." This was a timely subject, and most interestingly depicted. The matter of further meetings for this year was left to the discretion of the officers.

The district, in general, continues to reflect the fine attitude of the medical profession throughout the state, in providing medical attention to its people at the expense of long hours and added inconveniences, particularly in the smaller towns.

Needless to say, we will all welcome the end of this war and the return of our members from the armed forces to their place in our ranks. Until that day arrives the spirit of coöperation and helpfulness throughout the Tenth District can be assured to organized medicine.

N. K. Forster, M.D., *Councilor.*

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ELEVENTH COUNCILOR DISTRICT

The Eleventh District Medical Society has functioned about as usual. The October, 1942, and the May, 1943, meetings were well attended and the speakers were outstanding. Each of the seven counties has active organizations and hold regular meetings.

We have 144 paid-up members and a full quota in active service in the Army. Each county secretary, at the time its members pay their county dues, collects a dollar for district association dues, which always gives us a good balance in the treasury and is easily collected.

At the May meeting, held in Marion, Dr. R. L. Lavengood, of Marion, was elected president, and Dr. O. G. Brubaker, of North Manchester, was re-elected secretary-treasurer.

The next meeting will be held in Huntington, October 20, 1943.

Ira E. Perry, M.D., *Councilor.*

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TWELFTH COUNCILOR DISTRICT

We have had no meeting in this district in 1943, due partially to the fact that the physicians remaining at home are caring for the increased burden. Also, since fewer physicians are left in the district, we felt that the meeting should be cancelled this year.

Our President, Doctor Benjamin Pence of Columbia City, who is a Major in the Army, has been sent overseas.

No complaints have been registered in any part of the district, either by the lay-public or physicians. There have, however, been a few who thought that too many physicians have been taken into military service from this community.

We have been fortunate in that no epidemics have occurred, and the physicians have been able to take care of the public's ills without any hardship being brought to bear upon any one.

A few men have been returned to private practice, after having been in military service for some time.

Considerable credit is due the members of our Medical Auxiliary, who are keeping an active file of the men in military service.

Harvey L. Murdock, M.D., *Councilor.*

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THIRTEENTH COUNCILOR DISTRICT

Our District Society has lost its president, Dr. M. E. Miller of Goshen, to the Army, and its secretary, Dr. Lewis C. Bixler, to postgraduate training. At a meeting to be held this fall new officials will be elected. The affairs of the society are otherwise in good condition.

Alfred Ellison, M.D., *Councilor.*

EXECUTIVE COMMITTEE

House of Delegates and the Council,
Indiana State Medical Association.

Gentlemen:

I. INDIANA MEDICINE'S PART IN THE WAR.

Winning the war as completely and as soon as possible is the principal concern of the Indiana State Medical Association. Your officers and the members of the committee are proud of the 1,180 members of the state association who are serving in the armed forces. The committee also says "well done" to its members on the home front, most of whom are working literally day and night, taking care of the civilian population.

Long before Pearl Harbor the Indiana State Medical Association thought it was well to be prepared for war and took steps to see that the medical profession of the state was ready to play a definite and intimate part when war came. Since the war the Indiana physicians have initiated several actions which we hope will even in some small way help out at this time. Notable among these are:

1. **"Medsoc" letters to physicians in service.** This series of monthly letters, collected and prepared by "Medsoc" (short for medical society) and sent to every Indiana physician in service, V-mailed to those overseas, has been enthusiastically received. Booth Tarkington, George Ade, Cornelia Otis Skinner, Governor Henry Schricker, Wendell Willkie and President Wells of Indiana University, have been among the non-medical contributors to the series since Dr. Carl McCaskey, the president of the state association, sent out the first letter as a

Christmas greeting last December. Just who "Medsoc" is as yet remains a deep and dark secret.

2. **Nurses recruitment campaign.** Fighting men need nurses, but they are not getting them in sufficient quantity. Recruitment is lagging throughout the nation, and until a short time ago Indiana was no exception. The Red Cross and nursing officials called the Indiana State Medical Association in consultation. As a result, the need for nurses in the armed forces was the feature of the June issue of THE JOURNAL of the Indiana State Medical Association. Special articles and a front cover emphasizing the need appeared in this issue. A special week was set for a recruitment campaign in central Indiana, with the nurses association, the Red Cross and the medical association cooperating. Through the Indiana State Medical Association, General David N. W. Grant, Air Surgeon, and members of his staff, including Colonel Walter Jensen, who recently returned from Russia and is executive officer of the Air Surgeon's Office, and two service nurses, Major Ruth Parsons and Captain Juanita Redmond, author of "I Served on Bataan," flew to Indianapolis from Washington and, together with Myrna Loy and Governor Schricker, were the principal speakers at the nurses' rally that climaxed the recruiting week. The campaign was so successful that Indiana has now met its quota and the Indiana plan is serving as a model in other states.

We understand that Red Cross and nursing groups are making contacts with other state medical journals, using the Indiana journal as a sample of what can be done to stimulate recruiting.

3. **Industrial health educational program.** Perhaps the most important original contribution made during the year to the work of organized medicine, by the association, was the creation and promotion of an industrial health educational program as the result of a request made by Dr. Clarence Selby, chairman of the Industrial Health Committee of the Procurement and Assignment Service, a year ago at the annual session at French Lick.

The work of initiating and carrying out a program in Indiana that serves as a model for similar programs in other states has brought national recognition and commendation to the Industrial Health Committee of the Indiana State Medical Association, whose chairman is Dr. E. S. Jones of Hammond, and Dr. Louis Spolyar, chief of the Bureau of Industrial Hygiene of the Indiana State Board of Health, who worked with the committee. A detailed statement of this work appears in the annual report of the Committee on Industrial Health on page 494.

4. **Creation of A.M.A. Public Relations Council.** The Indiana delegation to the A.M.A. played a leading role in the successful movement at the annual A.M.A. meeting that resulted in the creation of a Medical Service and Public Relations Council of the A.M.A. Details of this meeting and the statement made upon behalf of the Indiana State Medical Association, by Dr. F. S. Crockett of Lafayette, before the House of Delegates are contained in the report of the meeting by Dr. Homer Hamer, published in the July issue of THE JOURNAL.

The Executive Committee feels that there is a big job to be done in public relations, and that it is the direct and urgent responsibility and duty of the A.M.A. — and not any outside organization — to do that job. The committee believes that much of the future of medicine depends upon the ability and foresight of the A.M.A. in leading and directing the course of medical practice now and after the war.

5. **Cooperative medical meeting with armed forces.** In order to coordinate better the effort and viewpoint of the physicians in the armed forces and those in civilian life, the annual meeting of the Indiana State Medical Association this year is to be held in cooperation with the headquarters' staff of the Ninth Naval District. This is an innovation, and your committee is confident that the results will be most worth while and may lead to similar endeavors with other branches of the armed forces.

II. ADMINISTRATIVE FUNCTIONS OF THE EXECUTIVE COMMITTEE.

Winning the war is, of course ,the main object of the 3,200 physicians composing the membership of the Indiana State Medical Association, both in the armed forces and on the civilian front, but many usual problems and routine duties which may or may not have a direct bearing upon winning the war came before the committee during the year. These duties fall into three parts:

A. Administrative.
B. Management of THE JOURNAL.
C. Administrator of the medical defense fund.

A. ADMINISTRATIVE.

1. **Regular meetings of the committee held monthly.** Things have moved so fast and problems have been so numerous in the past year that untold informal conferences and get-togethers have been held, in addition to the regular monthly meetings of the committee. These conferences, which were attended usually by the Indianapolis members of the committee, enabled the officers to meet many problems promptly without awaiting formal action of the committee. Such action in each case was then reviewed, amplified and changed as deemed necessary and made official upon formal action of the entire committee. In several instances letters containing questions involved in any set problem were written to the members of the committee and action was taken as a result of the answers received. Of course, any questions involving new policies were answered only after formal discussion by the entire committee.

The committee continued its custom of having chairmen and members of the key committees meet with it for luncheon during the regular monthly

meetings. The committee again extends an invitation to individual members of the association or representatives from local county medical societies to attend these meetings in order to discuss any specific problem that may be involved in any program of action that is to be undertaken by any official group of the state association. These meetings are most satisfactory, for through them the officers and members of the Executive Committee are kept better informed in regard to the entire medical picture of Indiana, and the individual physician who may have a local problem is able to obtain a better general picture of any problem by attending the Executive Committee meeting than perhaps he otherwise would have.

2. Membership. For the first time in ten years the membership of the Indiana State Medical Association shows a loss. Comparison of figures for 1942 and 1943 follow:

Year	*Number of Physicians In Indiana*	*Regular Members*	*Honorary Members*	*Total Members*
1942	4,132	3,081	110	3,191
1943	4,165	2,983*	110	3,093

(* This figure includes 741 men in service who received membership gratis.)

A great deal of this loss is due to the fact that some of the county medical societies have not reported on their members who are in service despite the fact that numerous requests have been made by the headquarters office that these men be kept in good standing by the local societies. It is generally known that a resolution was passed by the House of Delegates in 1940, providing that no state dues be paid by physicians in military service, but in order to maintain these men in good standing and to keep the proper record in the headquarters office, the names of these men must be reported to the state office on the regular membership slip by each county medical society secretary.

3. State and socialized medicine. Apprehension over the socialization of medicine did not lessen during the past year, and the Executive Committee took unusual care to keep itself informed in regard to the activities and trends, both national and local, which cannot help but affect the practice of medicine even in the most remote community of Indiana. Once again, upon behalf of the state medical association, the Executive Committee expresses its opposition to compulsory health insurance.

(a) Compulsory health insurance. In answer to the question as to the official position of the state association and the American Medical Association in regard to compulsory health insurance, the questioner was informed that the American Medical Association took the following action at the 1920 meeting of the House of Delegates:

> "RESOLVED, That the American Medical Association declares its opposition to the institution of any plan embodying the system of compulsory contributing insurance against illness, or any other plan of compulsory insurance which provides for medical services to be rendered contributors or their dependents, provided, controlled, or regulated by any state or the Federal government."

The Executive Committee of the state medical association holds that this position is as true today as it was in 1920 and, hence, is definitely opposed to the provisions contained in the Wagner-Murray Senate Bill 1161 and the companion Dingell Bill (H. R. 2861), introduced June 3, which contains compulsory sickness features.

(b) Maternity and pediatric care for wives and children of enlisted men in the armed services.

The Advisory Committee of the State Association to the Bureau of Maternal and Child-Health of the Indiana State Board of Health handled the details of this program after the Executive Committee decided that the medical profession of Indiana could not be "put on the spot" where it could be said that the State Association opposed a program of rendering maternity and pediatric care for wives and children of enlisted men in the armed forces. (See report of Advisory Committee to the Bureau of Maternal and Child-Health, page 491, and the article that appeared in the July issue of THE JOURNAL.) Following numerous sessions with Dr. Thurman B. Rice, state health commissioner of Indiana, and Dr. Robert E. Jewett, acting chief of the Bureau of Maternal and Child-Health of the Indiana State Board of Health, the committee made the following statement:

"The Executive Committee of the Indiana State Medical Association is sure that action taken by Congress and the State Board of Health with regard to maternity and pediatric care of *needy* wives and children of enlisted men will meet with the hearty coöperation of the medical profession of the State of Indiana."

The committee, however, is strongly opposed to the expenditure of federal and state monies to pay for medical services rendered any family of any individual, whether or not the head of the family is a civilian or a member of the armed forces, when he can afford to pay for medical attention which involves maternity and pediatric care.

(c) English and American Beveridge plans. These have been studied in detail by members of the committee and, although differing in detail, there is no doubt that the trend is toward socialized medicine. The talk given before the American Medical Association by Brigadier General Fred W. Rankin, past president of the association, and reprinted in the July issue of THE JOURNAL of the Indiana State Medical Association, gives a realistic view of the situation and definitely puts it up to the American Medical Association to take action.

(d) Interest of labor in medical service and hospitalization plans. An officer of the Indiana State Medical Association was invited to speak at the annual convention of the C.I.O. This invitation was accepted.

Dan Tobin, head of the teamster's union, published an article in the May, 1943, issue of the teamsters' bulletin, warning unions against writing hospitalization and sickness insurance policies for their members, saying that experience has shown that even though union treasuries contain funds which seem to be ample to cover payment of sickness and hospitalization benefits, such funds had been depleted and the unions had found their treasury empty. The Executive Committee feels that Mr. Tobin's warning is one that can well be considered when any sickness insurance or hospitalization plan is contemplated.

(e) Farm Security and transient agricultural workers. The medical care of transient agricultural workers who have come from Mexico, the West Indies and Bermuda has been placed in the hands of the Farm Security Administration. The Farm Security Administration has asked the state medical association to coöperate in a plan to take care of these workers. It is the feeling of the Executive Committee that this work should be handled through agencies that are already in operation and that a separate agency should not be set up to take care of these workers. Several years ago the Executive Committee agreed to policies in regard to medical care of Farm Security clients, and the committee sees no reason why the same policies set up for the care of these clients cannot be carried out in the care of the transient agricultural workers who have been placed under the care of the Farm Security Administration. To date only a comparatively few of these transient agricultural workers have been placed in Indiana.

(f) Pre-military examinations for seventeen- and eighteen-year-old school boys. These examinations were conducted under the direction of Frank S. Stafford, chief of the Bureau of Health and Physical Education of the Indiana State Board of Health. The Executive Committee approved the program in principle and recommended that a uniform examination card be prepared but that the details should be left to local authorities. The Executive Committee feels that the methods used in giving these examinations is entirely a local matter, and that the detailed arrangements as to the cost of such examinations should be made by the local medical societies and the local school authorities. It is the feeling of the Executive Committee that the Army, in making a request for these examinations, did not take into sufficient consideration the burden which had already been placed on the medical profession, if the Army authorities expected the examinations to be much more than cursory and routine affairs.

3. Medical relief. At the 1941 session of the legislature the responsibility for medical care of recipients of old age, blind and dependent children assistance was placed upon the Department of Public Welfare. The 1943 legislature amended this law to make it possible for the welfare department to pay the physician directly for services rendered recipients of welfare funds. Heretofore the money had been paid directly to the recipient, and in many cases was pocketed and not received by the physician who rendered the service. As far as making sure that physicians receive some compensation for these services, the system now used is much more satisfactory. However, many contend that when a physician receives money direct from the Department of Public Welfare it is step nearer socialized medicine than if he received the money from the patient after the patient had received the money from the Department of Public Welfare.

In this whole medical relief program the committee wishes particularly to commend the services rendered by Dr. E. O. Asher of New Augusta, who took the place of the late Dr. John Leffel, both as head of the Medical Relief Committee of the Indiana State Medical Association and as representative of the Indiana State Medical Association upon the State Medical Aid Advisory Committee of the State Department of Public Welfare.

(a) Revised manual on medical relief published by welfare department, June 17, 1943. The Executive Committee recommends that each county medical society appoint a committee to study this new manual, so that each society will know exactly what it is expected to sign up for when agreements are made with the welfare department to take care of welfare clients.

(b) Hospital admission law changed. Although the judges had handled commitments to the University hospitals and to the county hospitals to the general satisfaction of the entire profession, this law was changed at the 1943 session of the legislature at the request of the judges themselves. A complete, detailed report upon this subject is contained in the legislative report that appeared in the April issue of THE JOURNAL, pages 218 to 220. Following the adjournment of the legislature, a meeting was called by the Medical Relief Committee of the Indiana State Medical Association to discuss the administration of the new law. Here the committee merely wants to emphasize the suggestion made that a representative of the medical profession be appointed by the judge upon each county welfare board, this representative to be selected as a result of conferences with the proper local medical society officials.

(c) Cooperation with township trustees. With the trend toward centralization, more and more the Indiana State Medical Association values the friendly relationship that has been maintained with

the Indiana Township Trustees Association. From time to time problems in regard to medical care have been discussed by members of the Indiana State Medical Association and the Township Trustees Association, and the Executive Committee at this time wishes to express its appreciation of a letter received from Otto F. Walls, secretary of the Indiana Township Trustees Association, indicating that the Township Trustees Association will coöperate in trying to settle any questions that might arise between any of the trustees and physicians of the state concerning the problems of medical care. On several occasions these problems have been presented to the officials of the Township Trustees Association, and a solution of mutual agreement to trustees and physicians has been obtained.

4. Miscellaneous actions.

(a) Windshield emblems for physicians. The national Office of Defense Transportation has issued the following exemption in regard to the thirty-five mile speed limit set nationally for the use of automobiles:

> "Order ODT No. 23—The provisions of this order shall not apply to any motor vehicle when driven or operated in an emergency for the protection or preservation of life, health, or for public safety, provided that this paragraph shall not be so construed as to authorize any such motor vehicle to be driven or operated at a rate of speed in excess of that which is reasonable under conditions prevailing at such time."

Under the provision, Don Stiver, director of the Department of Public Safety (state police) has recognized the necessity of a speed in excess of thirty-five miles an hour for physicians who are using their cars in *emergency* medical service. Various types of windshield emblems, indicating a physician's car, have been used in various sections of the state. Todd Stoops, secretary-manager, Hoosier Motor Club, has arranged for windshield emblems for physicians in thirty-one counties of the state. The Executive Committee appreciates the coöperation of the state police and motor club authorities in this matter and stresses the responsibility of the physicians in seeing that there is no violation of this regulation.

(b) Cooperation with OPA. At the request of the Office of Price Administration a special OPA Medical Advisory Committee was appointed. This committee did an outstanding bit of work in setting up the special diet lists which appeared on pages 312 to 315 in the June issue of THE JOURNAL. Copies of this list are available through the headquarters office. This committee also worked out a uniform certificate to be used by physicians in requesting additional food ration stamps for sick persons. Dr. C. L. Rudesill, the chairman, and his committee are heartily commended for their splendid help and coöperation in doing a "thankless job."

(c) Charges against physician failing to volunteer. To the Procurement and Assignment Service, which has done such an excellent job in Indiana, has come many of the war participation problems. However, from time to time the Procurement and Assignment Service has transmitted questions to the Executive Committee for final solution. One of the questions brought to the committee was in regard to the right of a local society to file charges against one of its members because he has not volunteered for service, even though the local Procurement and Assignment Committee of his local society had indicated that he was available for service. The Executive Committee was of the opinion that no matter how regrettable such a situation is, a local society has no legal right to bring charges against any physician for failure to volunteer, for legally it is entirely a personal matter with a physician as to whether or not he volunteers for service.

(d) Definitions of "physician," "osteopath," and "chiropractor." Following are the definitions of "physician," "osteopath," and "chiropractor," prepared by the attorney of the association:

> "A physician is a person trained and licensed to use any and all kinds of medicines, surgery, manipulations, electrical devices, and any other methods which scientific research and experience have found to be effective in the treatment of any ailment."
>
> "An osteopath is one who is trained and licensed to use only osteopathy, which includes the use of surgery, anesthetics, antiseptics and narcotics, but rests chiefly upon the use only of manipulations in the treatment of any ailment."
>
> "A chiropractor is one who is trained and licensed to use, in the treatment of any ailment, nothing but manipulations of the spinal column."

These definitions are published in order that all may know the facts.

(e) Rule governing acceptance of commercial exhibits amended. The committee amended the following rule governing the acceptance of exhibits from commercial firms at the state meeting:

> "No proprietary drugs, chemicals or therapeutic agents which are not listed in the national formulary or in the U. S. Pharmacopeia or which do not comply with the rules of the Council on Pharmacy and Chemistry and of the Council on Physical Therapy of the American Medical Association will be accepted,"

to read as follows:

> "No proprietary drugs, chemicals or therapeutic agents which have been disapproved by the Council on Pharmacy and Chemistry or by

the Council on Physical Therapy of the American Medical Association will be accepted."

B. THE JOURNAL.

1. Statement of Executive Committee in regard to A.M.A. Cooperative Advertising Bureau. At a called meeting of editors and managing editors of the journals who belong to the Cooperative Advertising Bureau of the American Medical Association on June 5, 1943, in Chicago, the following statement, presented by Dr. E. M. Shanklin, editor of THE JOURNAL of the Indiana State Medical Association, was adopted:

"1. Indiana is opposed to any action which would sever the Coöperative Advertising Bureau from the American Medical Association.

"2. It is the recommendation of the committee that larger representation be given on the coöperative Advertising Bureau committee to the state journals.

"3. Such committee should be a functioning and not merely a paper committee and should make definite, detailed reports to the various states belonging to the Coöperative Bureau.

"4. The committee feels strongly that the proper machinery should be set up whereby anyone who contacts the American Medical Association or its officials in regard to advertising be told of the field covered by the state journals. An aggressive program on behalf of the state journals should be carried on through the Coöperative Bureau.

"5. A survey should be made of those products which are used regularly by physicians and have the approval of the Pure Food and Drug Administration but are not accepted by the Council on Pharmacy and Chemistry of the A.M.A. This survey should determine whether there are certain generally accepted products for which the state journals would supply an advertising outlet —an outlet which is now limited to the throw-away journals and those journals such as Illinois and New York which are not members of the Coöperative Advertising Bureau."

So far as is known, the definite outcome will be the enlargement of the Advisory Committee to the Cooperative Medical Advertising Bureau to include two additional editors of state journals who are members of the Cooperative Bureau. The membership of the committee henceforth will be composed of three editors and Dr. Olin West and Mr. Will Braun. The Executive Committee sincerely hopes that as a result of this enlarged committee a more aggressive program on behalf of the state medical journals will be carried out by the Cooperative Medical Advertising Bureau.

2. Doctor Shanklin recommended. The Executive Committee recommended to the A.M.A. that Dr. Shanklin be one of the additional members of this committee.

3. Attempt to keep up standards. Because of wartime exigencies necessitating increases in printing costs, advertising rates, and mailing list changes as a result of our members being transferred from place to place in the armed forces, plus the addition of a Military Section to THE JOURNAL, much work has been added to THE JOURNAL office during the past year, but every effort is being made to maintain a high standard of workmanship and yet keep the expenses at a minimum.

4. Printing contract. The C. E. Pauley Company will this year complete its sixth year of printing THE JOURNAL. The contract was continued following the proposal to produce THE JOURNAL during 1943 at the 1942 rate plus a nominal charge for the mailing list and an overall increase of 3½ per cent. Some additional charges have, however, been added, which Mr. C. R. Lineback, manager for the Pauley Company, explains as being due to increased costs.

5. Advertising. We have been somewhat pessimistic about the advertising revenue which runs approximately the same as in 1942 and at this rate will not offset the increase in printing cost. The new rates became effective for all advertisers in 1943; whereas in 1942 it applied only to new contracts let during the year. Letters have been sent out from THE JOURNAL office from time to time, soliciting prospective advertisers.

A comparison of advertising revenue for the first six months of 1943 with previous years is given:

First six months	*1940*	*1941*	*1942*	*1943*
Bureau agency	$2,376.19	$2,570.30	$2,558.89	$2,950.97
Direct	2,163.65	2,400.40	2,554.27	2,347.75
Totals	$4,539.84	$4,970.70	$5,113.16	$5,298.72

The members of this association can aid in increasing the advertising revenue by supporting the advertisers in THE JOURNAL. Advertisers want concrete evidence of the value of their advertising; the Executive Committee urges you to supply it by answering ads whenever possible.

6. Pages printed in 1942 in comparison with other years:

Year	*Reading Pages*	*Percent Read.*	*Adv. Pages*	*Percent Adv.*	*Total*	*Average Pages Per Issue*
1933	634	64	358	36	992	82
1934	604	60	408	40	1012	84
1935	704	62	428	38	1132	94
1936	680	59	472	41	1152	96
1937	674	57	514	43	1188	99
1938	728	59	504	41	1232	102.6
1939	730	59	502	41	1232	102.6
1940	736	59	506	40	1242	103.5
1941	728	58	506	41	1234	102.8
1942	752	60	488	39	1240	103.3

The number of pages printed in 1942 exceeded that of 1941, but in accordance with a governmental request for a reduction in pages, a concerted effort is being made to reduce the 1943 volume, yet not lose any of its value.

7. Donation of advertising space. THE JOURNAL has continued its policy of donating advertising space to the American Society for the Control of Cancer, the National Tuberculosis Association, and much space has been devoted to War Bonds.

C. MEDICAL DEFENSE ACTIVITIES.

1. Malpractice cases. A year ago, at the time of this report, August 1, 1942, the following thirteen cases were pending before the committee, three of which were closed during the year, leaving ten cases still pending:

Case No. 200—Suit filed February 12, 1932. Pending.
Case No. 203—Suit filed August 22, 1934. Defendant deceased, but case still pending.
Case No. 216—(Closed) Suit filed March 16, 1936. Case dismissed December 21, 1942. Expense, $150.00, paid March 16, 1943.
Case No. 225—Suit filed July 28, 1938. Pending.
Case No. 226—Suit filed November 5, 1938. Suit withdrawn and another filed January 16, 1939. Pending.
Case No. 227—April 7, 1939. Pending.
Case No. 230—Suit filed November 18, 1939. Pending.
Case No. 232—Suit filed April 11, 1940. Pending.
Case No. 237—(Closed) Suit filed December 16, 1940. Case dismissed December 16, 1942. Expense, $100.00, paid January 18, 1943.
Case No. 238—(Closed) Suit filed April 18, 1941. Four days' conference. Case settled March 4, 1943, for $750.00, which was paid by the insurance company. Expense, $250.00, paid May 18, 1943.
Case No. 239—Suit filed May 1, 1941. Pending.
Case No. 241—Suit filed February 7, 1941. Pending.
Case No. 242—Suit filed January 28, 1942. Pending.

Since August 1, 1942, and up to August 1, 1943, the following five new cases have come before the committee, making a total of fifteen cases pending at the present time as against thirteen unclosed cases at the same time last year:

Case No. 243—Suit filed August 15, 1942. Pending.
Case No. 244—Suit filed March, 1942. Pending.
Case No. 245—Suit filed January 30, 1942. Pending.
Case No. 246—Suit filed October, 1942. Pending.
Case No. 247—Suit filed June 7, 1943. Pending.

2. Medical Defense Fund Statement, from August 1, 1942, to August 1, 1943:

Balance, August 1, 1942		$7,009.48
Deposits:		
Dues, 51—1942 members at 75c	$ 38.25	
2,984—1943 members at 75c	2,238.00	2,276.25
Interest on bonds		363.75
		$9,649.48
Disbursements:		
Malpractice fees	$ 500.00	
Salary of Association attorney	1,300.00	
Treasurer's bond	15.00	
Printing	30.75	
U. S. Savings Bonds, Defense Series G	2,000.00	$3,845.75
Balance in Medical Defense Fund checking account, August 1, 1943		$5,803.73

3. Group malpractice insurance. During the year the committee has carefully considered the possibility of group insurance for the physicians of Indiana. Letters were written to the secretaries of each state medical society asking the following questions:

> "The Executive Committee of the Indiana State Medical Association is interested in knowing whether or not your state society carries a group malpractice insurance policy for its members. If so, we would appreciate receiving details and information concerning it. If you have such a policy, do you think the group plan is satisfactory?"

Answers were received from forty societies, and of this number sixteen societies reported carrying group policies.

The president of the state medical association and the chairman of the Executive Committee conferred with Dick Graham, the secretary of the Oklahoma State Medical Association, in regard to the group policy carried by the Oklahoma State Medical Association. In addition, conferences have been held with several insurance companies and letters have been sent to eight companies asking them if they would be interested in writing a standard $10,000 to $20,000 limit group malpractice insurance policy for the physicians of the state. The chairman of the committee will be prepared to discuss this subject in particular before the House of Delegates when this report is submitted.

CLEON A. NAFE, M.D., *Chairman*,
E. O. ASHER, M.D.,
C. H. MCCASKEY, M.D.,
J. T. OLIPHANT, M.D.,
F. T. ROMBERGER, M.D.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Committee on Public Policy and Legislation makes the following report:

During the 1943 session of the State Legislature the paramount question concerning medicine was the cults. A number of different bills were introduced which, in the main, would have set up separate examining boards for the various cults. These were all defeated. The cults showed more strength than usual, owing to the fact that they had representation in the Legislature itself. Since the session they have carried on an extensive educational campaign in an attempt to win public support. It is obvious that a concerted program to inform the public as to the dangers of lowering medical standards is necessary. Every county

medical society should take an active part in this work.

Throughout the year the committee has concerned itself with a number of projects directly concerned with the war effort. Your committee has coöperated with every agency to the end that those matters affecting medicine and public health should be dealt with from the point of view of rendering the best service possible to the public and with the safeguards of the ethical practice of medicine.

The most important problems which the medical profession must face squarely today are the plans and proposed legislation pertaining to social and welfare problems as they affect medicine. Principally among these is the new Wagner Bill which contemplates many of the insurance ideas of the English system. A careful study of these questions by each of the county societies is vital. It is suggested that legislators and congressmen be approached on the basis of coöperation and guidance by the medical profession and not on the basis of antagonism. Such a policy, your committee believes, will be apt to produce better results in the long run.

Your committee again wishes to express its appreciation of the help received from the local societies throughout the year. Your committee will continue to do its best to carry out the policies of the House of Delegates.

NORMAN M. BEATTY, M.D.,
J. WILLIAM WRIGHT, M.D.,
Co-chairmen,
GEORGE DANIELS, M.D.,
JOHN HEWITT, M.D.,
J. R. DOTY, M.D.,
A. P. HAUSS, M.D.,
H. L. MURDOCK, M.D.,
J. S. NIBLICK, M.D.

BUREAU OF PUBLICITY

House of Delegates,
Indiana State Medical Association.

Gentlemen:

I. FOREWORD.

With a war to win it becomes a question as to just what a publicity program of a medical organization should be. In fact, the question arises—Should there be any medical publicity program at all? The answer to this query in Indiana has been definitely "Yes." That basic question being answered, then comes the more difficult one—What should be the purpose of such a program? The answer is that we should not just put out publicity articles to be putting out publicity articles. For this reason the attention of the Bureau has this year been concentrated upon releases which would aid the civilian population in making its readjustment to restricted medical services brought on by the war. Numerous individual articles were released periodically along this line, and this was done effectively by information, public relations, and publicity committees of many local and state organizations and boards of health. Walter McCarty, managing editor of *The Indianapolis News,* suggested that a series of articles be prepared which would tell how the medical profession is meeting demands made upon it due to the war, and what an individual might do to guard his health. This request was made to the Indianapolis Medical Society, and the Bureau of Publicity was asked by the officials of that society to assume the responsibility of seeing that these articles were prepared.

Indiana Doctors and the War. The result of the request was a series of nine articles, and this was probably the most important job done this year by the Bureau of Publicity. The public comment and reaction to this series was so favorable that it is felt by the Bureau of Publicity that similar releases should be available to papers throughout the state, should they be desired. Many societies throughout the state sponsored splendid articles, giving suggestions as to how the public might coöperate with their physicians in these busy times. The Bureau suggests that local county societies might consider the preparation of a series of articles for their own local papers, similar to *The News* series. Any society is welcome to use any of these articles and supplement them with articles by their society president, hospital superintendents, or other proper officials.

The titles of the articles and their authors and publication dates in *The News* follow:

"The War and Doctors," Walter P. Morton, M.D., president, Indianapolis Medical Society, June 29, 1943.

"Procurement and Assignment Service for Marion County," John Ray Newcomb, M.D., chairman, Procurement and Assignment Service for Marion County, June 30, 1943.

"Public Health During War Times," Thurman B. Rice, M.D., State Health Commissioner of Indiana, July 1, 1943.

"This Is War," Charles W. Myers, M.D., superintendent Indianapolis City Hospital, July 2, 1943.

"The Hospital and the Public During the War Emergency," J. B. H. Martin, administrator, Indiana University Medical Center, July 3, 1943.

"Industrial Health Problems in War Time," Louis W. Spolyar, M.D., chief, Bureau of Industrial Hygiene, Indiana State Board of Health, July 5, 1943.

"Mental Health in War Time," Max A. Bahr, M.D., superintendent, Central State Hospital, July 6, 1943.

"Medical Profession Faces Big Job," Charles R. Bird, M.D., chairman, Indiana Procurement and Assignment Service, July 7, 1943.

"Postwar Medical Problems," C. H. McCaskey, M.D., president, Indiana State Medical Association, July 8, 1943.

These articles might be summed up in the following statement: "It is the feeling of the Bureau that despite much unwarranted publicity to the contrary, there are in Indiana at the present time enough physicians to take care of the public and that no one need feel alarmed or have any apprehension that there would not be proper medical care should an epidemic occur."

II. DUTIES OF THE BUREAU.

1. Advisory Committee to Auxiliary. One of the important functions of the Bureau, in addition to preparing and distributing releases to newspapers and supplying speakers upon request for medical societies and lay organizations, is to act as an advisory committee to the Woman's Auxiliary. In line with this duty the chairman of the Bureau of Publicity addressed the annual midwinter board meeting of the Woman's Auxiliary, which was held in Indianapolis on May 5, 1943.

The Bureau particularly congratulates the Woman's Auxiliary to the Indianapolis Medical Society and the Cass County Auxiliary upon the effective job done by these organizations in aiding the Procurement and Assignment Service of these two county medical societies when it was called upon by the Washington Procurement and Assignment Service office to reclassify its members. This job was done completely by these auxiliaries. Other auxiliaries may have done a similar job.

2. Interest in Medical History. Although war has placed emphasis upon the present crisis and upon "the shape of things to come," the Bureau wishes once again to appeal to the physicians and the auxiliary members throughout the state to maintain their interest in Indiana medical history. Any matters of historical interest, such as records of physicians in county clerks' offices, old county medical society histories, and any historical bits of information that may be obtained should be preserved by each county medical society. When the war is over the Bureau hopes that the historian of the Indiana State Medical Association may be allotted funds to compile historical data and prepare at regular intervals articles of historical interest. This, of course, is a job for a person trained in historical research work. In the meantime it is hoped that any historical material that develops may be kept so that it will be available when the active work upon medical history can be resumed.

III. NEWSPAPER PUBLICITY.

In addition to the special series of articles prepared for *The Indianapolis News*, the following releases were issued for state-wide distribution by the Bureau of Publicity during the year:

Annual Session of the Indiana State Medical Association, at French Lick, Indiana (7 releases).
Appreciation to public of Indiana.
Secretaries' Annual Conference.
War Emergency Medical Care.
Industrial Health Conference (2 releases).
Good Food Will Win the War.

IV. MEDICAL MEETINGS.

Speaking engagements filled during the year before lay and medical groups follow:

1942

September 16—Parke-Vermillion County Medical Society, Clinton.
November 10—Fayette-Franklin County Medical Society, Connersville.

1943

January 29—Woman's Auxiliary to the Indianapolis Medical Society, Indianapolis.
February 17—Miami, Wabash and Cass County Medical Societies, Peru.
March 1—Scientech Club, Indianapolis.
March 25—Radio talk over Station WFBM, Indianapolis.
May 5—Woman's Auxiliary to the Indiana State Medical Association board meeting, Indianapolis.
May 19—Fourth District Medical Society, Greensburg.
June 8—Hamilton County Medical Society, Noblesville.

The Bureau wishes to call particular attention to the speaker who was placed upon the program for the Industrial Health Conference to discuss specifically the topic, "The Rights of the Individual Practitioner in the Industrial Field." It is the feeling of the Bureau that the present system whereby the patient is not allowed to choose his own physician, a system which is now practiced in the industrial medical field in Indiana, is fundamentally bad, and is fundamentally a violation which makes it inconsistent for the medical profession to oppose as it does socialized medicine on the one hand and yet condone a practice which contains within itself the worst feature of any program of socialized medicine, that is, forcing a patient to go to a certain specified physician, as is done in so many cases of industrial medicine.

V. MEMORIAL TO DR. CREGOR.

This report of the Bureau of Publicity would not be complete without a mention of the loss of Dr. Frank W. Cregor. Dr. Cregor was one of the original sponsors of the proposal to establish the

Bureau of Publicity, in 1922, and was a member of the Bureau during the first three years of its existence. In its memorial tribute to Dr. Cregor, which appeared in the February issue of THE JOURNAL, the Bureau of Publicity said of him, "Tireless work, organizing ability, a high regard for scientific medicine, will power, enabled Doctor Cregor to succeed, but perhaps his efforts were effective in dealing with the public and the legislature largely because he constantly enunciated and was guided by the fundamental precept: 'The medical profession of Indiana never has and never will appear before the General Assembly to ask for legislation which is not in the interest of the public health and welfare.'"

VI. FINANCIAL STATEMENT OF THE BUREAU.

The expenditures of the Bureau from August 1, 1942, to August 1, 1943, follow:

Clippings	$ 83.45
Postage	45.22
Printing	39.00
Miscellaneous	1.98
Total expense	$169.65

H. G. HAMER, M.D., *Chairman*,
BEN B. MOORE, M.D.,
K. R. RUDDELL, M.D.

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Committee on Medical Education and Hospitals has been completely inactive this year. There has not been a meeting of the committee, and obviously there was no reason for such a meeting.

The chairman accepted assignment to the regional committee on War-Time Graduate Medical Meetings.

The chairman also attended a meeting of the Council on Medical Education and Hospitals in Chicago during the spring of this year.

HERMAN M. BAKER, M.D., *Chairman*,
O. O. ALEXANDER, M.D.,
M. S. DAVIS, M.D.,
ROBERT M. MOORE, M.D.,
E. N. KIME, M.D.,
C. J. CLARK, M.D.

COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

(As no business has been transacted through this committee during the year, the committee has no report to make at this time.)

THE JOURNAL

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Let us reiterate, THE JOURNAL is the property of the Indiana State Medical Association; therefore it is *your* magazine. The editor, the managing editor and the editorial board are your servants; it is their job to see that THE JOURNAL reaches your desk every month, also that it carries live, up-to-the-minute medical news.

Since our last report, as of September, 1942, we have carried on under some difficulties, yet have been able to surmount each of these as they appeared. Publication costs have increased to a great degree, and we anticipate still further increased, and this, together with the fact that we curtailments. Paper costs, in particular, have increased, and this, together with the fact that we officially are advised that we must cut down in the matter of material used, means that our printed pages probably will be less in number.

During the past year we have at times been a bit short in scientific material, but letters here and there have brought hearty response, and we believe that our magazine has maintained the high rating of former years.

Communications from over the state, plus not a few from outside Indiana, would seem to bear this out. Editorially, it has been our policy to discuss the various economic problems incident to wartime. At times it may seem as if we are publishing a "war" magazine, since so much space is given to war subjects. In this connection it might be well to state that the editors are in close touch with many of the Federal departments, each of which has been assured that the columns of THE JOURNAL are open to them at any time.

It has been a pleasure to again assist in the direction of the policies of such a live magazine, this being the eleventh year that we have had to do with the publication. We take this opportunity to thank the members of the Association who have given generously of their time in the preparation of papers, in addition to other favors, and the Editorial Board—not forgetting Miss Rokke, of headquarters, whose assistance has been of the yeoman variety.

And to our printers we extend an extra vote of thanks; we know somewhat of the trials and tribulations that are yours in wartime, yet you have come through, each month, in glorious fashion.

In conclusion, we ask your continued support, and in return we will make every effort not only to maintain our present standard, but, if possible, to improve *Your Journal.*

E. M. SHANKLIN, M.D., *Editor.*

COMMITTEE ON SECRETARIES' CONFERENCE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Secretaries' Conference was held in Indianapolis on January 24, 1943, with a very satisfying attendance. It was probably as large as any meeting that has ever been held.

The program was carried on in the auditorium of the Indiana World War Memorial, and the dinner was served at the Indianapolis Athletic Club.

The guest speakers were: Brigadier General David N. W. Grant, Army Air Corps; Major Howard Rusk, Army Air Corps; Dr. Walter F. Donaldson, chairman of the War Participation Committee of the American Medical Association, and secretary of the Medical Society of the State of Pennsylvania; Dr. Albert McCown, director of the Medical and Health Service of the American Red Cross; Dr. Carl M. Peterson, secretary of the Council on Industrial Health of the American Medical Association; Dr. Elmer L. Henderson, chairman, Fifth Service Command, Procurement and Assignment Service; Dr. C. H. McCaskey, president, and Dr. J. T. Oliphant, president-elect of the Indiana State Medical Association; Dr. C. R. Bird, chairman of Procurement and Assignment Service for Indiana, and Rollen W. Waterson, executive secretary of the Lake County Medical Society.

Members of the legislature were guests.

A. M. Mitchell, M.D., *Chairman*,
E. P. Buckley, M.D.,
Ralph E. McIndoo, M.D.,
E. L. Burrous, M.D.,
W. M. Dugan, M.D.,
W. G. Pippenger, M.D.

PERMANENT STUDY COMMITTEE ON HEALTH INSURANCE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The propaganda given the Beveridge Plan; the report of the National Resources Planning Board; the presentation of the new Wagner Bill, with its implication of a new "Bill of Rights"; the promulgation of the Canadian National Health Bill; the rising voice of public health workers, and particularly that of social workers; the accumulating evidence to the effect that medico-economic meetings are dominated by activities directed toward a change in medical practice; the voice of the president of our own organization, calling for coöperation with proposed and contemplated plans for medical care; the clarion warning of our own retiring president to the effect "That our medical descendants should look back and point a culpable finger to our page of history which would read that our actions were 'too little and too late,' is a plaguing thought." All these and more are prophetic.

In all of this your Committee has for a long time recognized the impending change in medical practice. True, we have been hampered in our recommendations by existing State Insurance laws. That these were not insurmountable is beside the point. The facts are that this Committee has recommended coöperation with existing insurance facilities, based on an underwriting plan that would satisfy our own requirements for a health service. This was rejected. We have, as an alternative, recommended that the Committee on Public Policy and Legislation prepare a bill, with the approval of the Council, to be presented to the State Legislature, that would permit the formulation of a state-wide health insurance plan under the jurisdiction of the State Medical Association. This was also rejected. Ex-officio, we suggested that perhaps the Michigan plan might be made operative in this state by reason of securing a charter to operate in Indiana—a plan which Michigan was willing to initiate, but which met with no response from our association.

In view of these defeats, we finally came back to our original recommendation, presented to the House of Delegates in September, 1942, at French Lick. We said "In the face of this threat (governmental control of medical practice), therefore, it is extremely necessary that the medical profession bend every effort toward the solution of these problems, not only that our way of practice be preserved now and for the years to come, but that we may be able to turn back to our colleagues in the armed forces their inherent right to individual practice when they return." Our recommendation in 1942 was worded as follows:

We have previously recommended, and we again recommend, that a committee be appointed or delegated to review and assemble all of the best features of existing plans and combine them in one plan for presentation to the Council. After due consideration and approval this plan should be presented to one or more commercial insurance companies for consideration and underwriting. If found acceptable, the plan should then be endorsed by the Association and its provisions made available to the public through the insurance company or companies determined upon.

This recommendation was accepted by the House of Delegates. So far no committee has been appointed or delegated to conform to the recommendation. This negligence is excusable in the face of existing conditions of a nation at war. All of us have more to do than we can efficiently accomplish. Our state office is overwhelmed with extra duties that demand instant and constant decisions and

processing. However, there can be no more important problem than the actual fate of medical practice itself. We have a multitude of problems, and they comprise, principally, our own method of practice and our efforts to restore to our fellow practitioners, in the armed services, the manner of practice to which they were accustomed and to which they expect to return.

Compulsion is a harsh word in the American scheme, and yet its cobra head is raised in the post-war plans for medical practice through bureaucratic administration.

Neither bureaus nor medical science can promise freedom from sickness, but medical science, unaided by bureaucrats, has gone a long way, through its progressive measures, in raising life expectancy to 64-68 years, and in its preventive and therapeutic advances.

Such plans for medical care as have been recently advocated are all based on the compulsory insurance idea, with the elimination of the fee for service basis. Employment of physicians, subject to state and governmental bureaus and regulations, will be the future of medical practice unless some adequate and immediate plans to defeat this scheme are inaugurated.

No one, least of all the medical profession, can object to the desire of socially-minded individuals to provide medical care for all the people—they, in fact, are re-echoing a principle which has been paramount in the minds of the medical profession for many years.

In view of this attitude of medical practice, no one can advance sufficient figures to indicate that there is a necessity for governmental control of our profession. Fourteen state medical societies are developing plans for *voluntary* sickness insurance. Throughout the nation countless industrial organizations provide protection for their employees against the costs of catastrophic illness and hospitalization, and the majority of these liabilities are covered by commercial insurance companies. Farm families have already been protected through the Farm Security Administration. Independent hospitalization plans insure more than 15,000,000 people against the hazards of confining illness. Such accomplishments have been presented without the aid of governmental control and solely through the coöperation of the medical profession and independent hospitals.

There is a strange philosophy rampant that during this time of war nothing can be accomplished without governmental directives. And yet this country was founded and has survived for over one hundred and fifty years on the principle of freedom, and especially free enterprise. It is astounding that in these times we face the situation of dependence upon governmental whims, when throughout the ages medicine has progressed and science has advanced without the artificial aid of know-nothing politicians.

We recognize the necessity for the provision of adequate medical care for all the people. We also maintain the right of the individual to seek his medical care without interference from state or governmental agencies. That is an inherent principle of freedom upon which the independence of this country was founded.

We also recognize the necessity for providing voluntary insurance coverage to protect the people from the hazards of illness and hospitalization costs. But that this must be on a voluntary basis is only compatible with the principles upon which our democracy was founded. If you want the idea of compulsory insurance, you can depend upon a cost of at least $20,000,000,000 a year, perhaps more. That exceeds, by far, the total anticipated income tax for 1943. Think that over.

We again recommend, and urge, that a committee be appointed or delegated to present the best available plan for health insurance, after due consideration of existing plans, and with the suggestions for underwriting by commercial insurance companies; that such plan be presented to the Council for its consideration and, following its approval, that the plan then be presented to the Association for its endorsement. Following this its provisions should be made available to the public through the insurance company or companies expressing a willingness to underwrite the plan.

N. K. Forster, M.D., *Chairman,*
Lynn W. Elston, M.D.,
Stephen L. Johnson, M.D.,
A. C. Yoder, M.D.,
Clay Ball, M.D.

COMMITTEE ON NECROLOGY

House of Delegates,
Indiana State Medical Association.

Gentlemen:

This committee has no report to make at this time, as it publishes annually in the earliest possible number of The Journal a list of all physicians who have died in the previous year.

James B. Maple, M.D., *Chairman,*
W. D. Inlow, M.D.,
C. N. Combs, M.D.

COMMITTEE ON STUDY OF HIGH SCHOOL ATHLETICS

House of Delegates,
Indiana State Medical Association.

Gentlemen:

For several years the members of this committee have contended that physical fitness is the most important single thing in competitive high school athletics. We have felt that sound health and a proper period of conditioning were essential in those boys who went through a football or basket ball or track playing season. As the months go by

and the benefits of competitive athletics, particularly the high school variety, become apparent and are recognized by the military authorities, we feel that the sponsors of high school athletics deserve the recognition that is due them.

There is no doubt that coördination, coöperation, initiative and resourcefulness have been developed and, we could say, cultivated by the system of competitive athletics. And with the experience of two years of military training, who shall say that the American Way of building the body, mind and spirit is not a good one? Certainly the foregoing of pleasures, the willingness to observe strict training rules, and the school and community enthusiasm have been, on a small scale, the same sort of training that the military branches inculcate. The zest for competition and the will to win, while inherent in most of our boys, undoubtedly have been enhanced by competitive athletics, particularly those branches sponsored by our high school authorities.

W. D. Little, M.D., *Chairman*,
George S. Bond, M.D.,
H. C. Wadsworth, M.D.,
G. A. Thomas, M.D.,
W. C. Wright, M.D.,
J. E. McMeel, M.D.,
James H. Crowder, M.D.

COMMITTEE ON MENTAL HEALTH

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Committee on Mental Health has held no formal meeting in the past year; in fact, no specific problems have been brought to its attention.

This has been an extremely busy year. Your Committee is aware of and alert to the many questions dealing with the mental health of the civilian population of this state. Your attention is invited to the Committee report of last year in which it was shown that in the Indianapolis area alone the number of neuropsychiatrists had been reduced from sixteen to five; this situation continues the same. With the Medical Department of Indiana University now on a twelve-month schedule of operation, a twenty-five per cent burden is added to the teaching staff.

The state hospitals for the insane have suffered severely in the past year; as mentioned in last year's report, many of the younger members of the staffs of these hospitals are in the military service and, wherever possible, this deficiency has been filled by older physicians or those physically disqualified for military service. These hospitals require a large number of both male and female attendants; military service and the attraction of higher wages and shorter hours in various industries have depleted the supply and the hospitals are faced with the serious problem of securing sufficient and adequate help in the care of the insane patients. The devastating fire at the Evansville State Hospital last winter has necessitated a reallocation of the state and has burdened the other four institutions which were already carrying an overload. This Committee is convinced that under present conditions there is a marked increase in neuropsychiatric conditions in the civilian population; this means greater hospital facilities and the need for more doctors and nurses trained in this field. There are but few private institutions in this state for the care of neuropsychiatric cases, and these hospitals and sanatoria are crowded to the limit.

Your Committee is fully aware of the acute situation, the shortage of well-trained neuropsychiatrists to man hospitals, carry on teaching, and attend the civilian population; it is aware of the shortage of hospital beds and adequate facilities for treating the mentally ill, and it is aware of the steady increase in the number of neuropsychiatric conditions. Your Committee could make many recommendations, but they would be of no avail. We simply are forced to realize that this country is at war, and adjust activities and resources to existing conditions.

This Committee again extends congratulations to the members of the neuropsychiatric group of Indiana now in the military service; these officers have all made a good accounting of themselves and we are proud of them.

Larue D. Carter, M.D., *Chairman*,
L. P. Harshman, M.D.,
J. H. Hare, M.D.,
Max Bahr, M.D.,
C. L. Williams, M.D.,
P. S. Johnson, M.D.

COMMITTEE ON STATE FAIR

(As no business has been transacted through this committee during the year, the committee has no report to make at this time.)

COMMITTEE ON PREVENTION OF TRAFFIC ACCIDENTS

House of Delegates,
Indiana State Medical Association.

Gentlemen:

As no occasion arose for any action on the part of the Committee on Prevention of Traffic Accidents during the past year, no meeting has been held.

Will A. Thompson, M.D., *Chairman*,
C. Philip Fox, M.D.,
G. W. Willison, M.D.,
J. W. Morris, M.D.,
S. H. Crossland, M.D.

ADVISORY COMMITTEE TO BUREAU OF MATERNAL AND CHILD-HEALTH OF THE INDIANA STATE BOARD OF HEALTH

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your committee met in June in conjunction with Dr. R. E. Jewett, acting chief of the Bureau of Maternal and Child-Health of the Indiana State Board of Health. The subject matter under discussion concerned the obstetric and pediatric care for the families of service men up to and below the rank of sergeant in the Army and that of equivalent rank in the other branches of service. The method of such care and the details of the adopted fee schedule are fully explained on pages 361 and 362 in the July number of the Indiana State Medical Journal. We wish to make one correction in regard to the fee for postnatal circumcision. The fee allowed will be five dollars instead of ten dollars. Later therapeutic circumcision will, however, be ten dollars.

H. F. Nolting, M.D., *Chairman,*
J. C. Carter, M.D.,
C. J. Rothschild, M.D.,
K. T. Knode, M.D.,
W. L. Portteus, M.D.,
Foster J. Hudson, M.D.,
John D. Van Nuys, M.D.

DIRECTOR OF RESEARCH ON SICKNESS INSURANCE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

This has been an eventful year in which an overbusy profession, intent on its immediate duties, has, at least to a substantial degree, lost sight of the unceasing and increasing progress toward state medicine. The medical profession, so far as visible evidences are seen, dulled by over-work and present high income, is content and indifferent. That very great changes are impending seems clearly written. Throughout the nation the growth of insurance plans indicates their public popularity, and their present laxity of administration gives them an attraction to the profession.

Current information indicates some thirteen million participants in more than a hundred wide plans, with scores of local setups conducted by individual groups. The overlooked factor in all the larger plans is the always-present factor of subsidy now easily charged off to general expense and deductible from taxable income or hidden in gross income with diminished net. But with cessation of war boom and employment, the participants will have to return to payment of their own bills, and generous laxity in granting benefits will lessen. But the habit and desire will remain, creating or adding to demand for medical and hospital services at little or no personal cost. The result is government supply of these services, and such supply is the end of our present medical plan so that we in America will travel the road of our European colleagues in over-work, regimentation and loss of incentive for improvement.

Under the proposed Beveridge Plan in England, an economic condition called "security" is planned from birth to death (a womb to tomb coverage), embracing the entire people. While the plan includes unemployment and old-age insurance and has minor reference to housing and food, the health provisions are central throughout, with the medical men elected to fill the leading roles, but—and this is the crux of the scheme, under control and direction of methods and means by whom-so-ever may, for the time, be in power. And that those rules of conduct have teeth, I have personally seen in other countries.

The medical man having a panel assignment and under this plan (which is true now in England) disobeying the whim or fear of his patient is reported and fined, with possibility of dismissal, and that would mean finding a new occupation. The British Medical Association is so far committed and the English profession so involved that it can only *ask* for inclusion of medical men in the governing groups. In the past, with avenues of escape yet available, the programs of the British medical committees, acting in liaison between the profession and government, are largely resolutions with the recurring statements, "We again request" or "We again protest." The Beveridge Plan is but a short step from the present conditions. It was inevitable. It has the one virtue of being final—there will be no private practice.

In our own country the late unlamented Planning Board proposed substantally the same plan, but it lacked the fortitude clearly to define its aims, possibly the time being unripe and not enough preparation done. But now clearly and definitely, the Wagner-Murray-Dingell Bill, introduced in the senate in June, unequivocally proposes a nationwide governmentally controlled system of medical, dental, nursing and hospital supply, financed by compulsory tax and directed by the Surgeon General of the Public Health Service, who even may take over medical education in event of unwillingness of the existing profession to go along. Rules and regulations concerning allotment of patients, fees, methods and means of practice; recognition of hospitals and constitution of their staffs will have the effect of law although subject to change at his pleasure, without appeal or redress. He can establish lists of practitioners and of specialists, with definition of their permitted activities, and has final power of discipline, unfettered by law.

There is no semblance of retention of controls or standards or authority by the states, by local governments or by the profession. It is at once a grasp for complete and unbridled control of every function concerned in health, including the personnel of each profession connected, and the facilities necessary thereto, and control of the educational avenues of admission.

If this bill, even modified, gets on the statute books, it will never come off. There are too many specious arguments favoring it, the fallacies of which are not seen by the laity and, it is suspected, not fully appreciated by the profession; but it represents socialized medicine in the complete form.

The medical profession has repeatedly announced its entire disapproval of such a plan, but opposition largely has been confined to brilliant speeches, extolling the past accomplishments and virtues of the profession, which reach only the profession and represents to it only a tiresome, if scholarly, repetition of things already long known, and so far no ringing challenge in active and open opposition has been expressed by those looked to as leaders.

From the apparent popularity of indemnity plans and their apparent acceptance by the profession as a lesser evil and in view of the likelihood of adoption of some form of Federalized control of medicine, it seems desirable to recommend to the Association the abandonment of a waiting policy, and adoption of a state-wide medically-controlled plan of medical and hospitalization indemnity, endeavoring to interest other states in a similar, but separate and integrated plan, actuarially sound, amply financed and managed by competent executives with profit incentive, preferably excluding non-profit humanitarians who would be more useful in a Federally controlled plan. At least one state has a workable plan which might be modified to insure financial stability, without the possibility of the profession having to stand the possible losses to keep it solvent.

The return of a large number of young men, both medical and lay, to civilian life will accentuate the problem which, in view of the social trends, will be settled soon. The situation now requires active, forceful, articulate opposition to the Senate bill, a clear and definite, medically-approved plan and strong purposeful leadership in the national medical body. This Association has a strong committee on health insurance which should be directed to present a definite plan.

Heretofore it has seemed that an improvement of economic conditions might make action unnecessary, but it appears that social conditions have been so altered, with consequent increasing dependence on governmental provision for every individual need, that we may no longer safely depend upon our record of unselfish accomplishment, but must offer an acceptable compromise permitting the retention of part or most of the methods we believe in.

The adoption of a sane, fair, workable, sound plan of hospital and medical indemnity (rather than medical service) seems desirable and is recommended.

WALTER U. KENNEDY, M.D., *Chairman.*

HISTORIAN

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Under existing circumstances there has been no activity on the part of the historian of the Indiana State Medical Association during the past year. It will be recalled that I have felt it will be impossible to do anything until such time as money may be provided for a part-time worker to assist in delving into the medical history of Indiana.

EDGAR F. KISER, M.D.,
Historian.

LIAISON COMMITTEE OF THE DIVISION OF SERVICES FOR CRIPPLED CHILDREN

Due to the fact that the schedules of the committee members are overloaded at the present time and that no immediate changes in the administration of the Crippled Children's Program are contemplated, no meeting of the Liaison Committee was called by Thurman Gottschalk, the director.

Mr. William Sterrett, who has been administrator during the past few months, entered the United States Army on April 17, 1943. Dr. John D. VanNuys, who has been serving as a medical consultant in the Division, will become supervisor of all professional personnel and services of the Division. Miss Mildred Morris will be responsible for the administrative routine of the Division.

I. C. BARCLAY, M.D., *Chairman,*
J. H. WEINSTEIN, M.D.,
J. H. GREEN, M.D.,
GEORGE COOK, M.D.,
L. A. ENSMINGER, M.D.,
R. L. SENSENICH, M.D.,
G. A. COLLETT, M.D.

AUDITING COMMITTEE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Auditing Committee met at the Indiana National Bank on July 20, 1943, and examined the securities of the Association. These holdings, as listed by the George S. Olive and Company, certified public accountants, in their annual report for the year ending December 31, 1942, and as

published in the treasurer's annual report (see page 472), were found to be in order in both the general fund and the medical defense fund.

Your Committee also examined the cash balances in The Indiana National Bank, The American National Bank, The Fletcher Trust Company, and The Bankers Trust Company, as shown by the bank statements. These accounts consist of the general headquarters' office fund, the medical defense fund, THE JOURNAL fund, and the petty cash fund, respectively.

O. B. NORMAN, M.D., *Chairman*,
S. T. MILLER, M.D.,
C. C. BITLER, M.D.

COMMITTEE ON CONTROL OF CANCER

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Cancer Control Committee of the Indiana State Medical Association held a meeting on January 24, 1943, at the Indianapolis Athletic Club, Indianapolis. The following members were present: Drs. E. E. Padgett, E. V. Wiseman and C. A. Stayton. Guests were: Mrs. Beryl S. Holland, state commander, and Mrs. Olive Beldon Lewis, executive secretary of the Indiana Division of the Women's Field Army. Dr. W. E. Jenkinson, of Mount Vernon, Indiana, was present for part of the session. Members absent included: Drs. D. C. McClelland, Lafayette, and M. B. Gevirtz, Hammond. The committee voted to continue its activity throughout the year with emphasis on the work of the Women's Field Army.

Mrs. Holland reported on her course of study at the National Training School held at Bar Harbor, Maine, and New York City for executives of the Women's Field Army. Every state except four was represented and many states were represented by members of the State Board of Health. The lectures at Bar Harbor were given by Dr. C. C. Little, director of the American Society for the Control of Cancer, and staff. At this location the American Society maintains a scientific laboratory for research work in cancer. In New York City classes were held in the Memorial Hospital. Lectures were given by physicians, including Dr. Ewing and Dr. Adair.

Drs. E. E. Padgett, Don Bowers, Frank Forry, E. V. Wiseman and C. A. Stayton served as the executive committee of the Indiana Division of the Women's Field Army. This committee held six meetings during the year. The officers of the Women's Field Army were present at each meeting.

The receipts of the Indiana Women's Field Army for the 1943 campaign as reported by the treasurer, James S. Rogan, president of the American National Bank, were $12,798.40. Of this $538.89 was for memorial funds; $3,142.60, the national office quota; $500, a gift with which to buy equipment for the Tumor Clinic at the Indiana University Medical Center; and $5,331.40, expense of operating the Indiana Division of the Women's Field Army and the campaign for funds during the last fiscal year. The balance for the previous fiscal year was $4,399.64. This leaves an operating balance of July 1, 1943, of $11,732.46. Seven counties oversubscribed their quota and received refunds amounting to $1,784.05.

The following counties oversubscribed their quotas of $1.00 for each one hundred persons in the county: Madison, $2,191.44; Bartholomew, $451.84; Clay, $291.17; Johnson, $402; Blackford, $144; Boone, $241.93, and Clinton, $371.51. Marion County subscribed $2,341.38. The following counties had active Women's Field Army organizations and deserve honorable mention: Monroe, Vigo, Lake, Howard, Wabash, Elkhart and LaPorte. Dr. Stanley Clark, of South Bend, has been very helpful in establishing a new Women's Field Army organization in St. Joseph County.

Activities approved by the Cancer Control Committee of Indiana and carried out by the Women's Field Army were:

1. A high school poster contest for which cash prizes were awarded in each district and the state. This proved to be very popular and hundreds of posters were received. Each judging committee had a doctor as one of the judges. This proved to be of great educational value.

2. A high school essay contest for which cash prizes were awarded in each district and the state. This contest was not as popular as the poster contest and did not seem to provoke as much original thought by the participants.

3. Diagnostic tumor clinics as advocated by the American College of Surgeons.

Two diagnostic tumor clinics were held under the direct supervision of the committee and aided by the local and state organizations of the Women's Field Army. All of the publicity and details were handled by the superintendent of the sponsoring hospital and the Women's Field Army. Since these were the first cancer clinics of this type to be held in Indiana, the procedure is described:

The Committee on Cancer Control of the state association asked for and received the approval of the county medical society for such a clinic. The Women's Field Army then secured the county hospital as the sponsoring agent and publicized the clinic through the county papers. The hospital superintendent wrote a letter to each member of the hospital staff and each member of the county medical society, asking them to send in patients and inviting them to participate in the history-taking and examining of the patients. No fees were charged.

Diagnostic Clinic No. 1—Putnam County Hospital, Greencastle, Indiana. August 12, 1942; 2:00 to 4:00 P.M. Doctors present: E. V. Wiseman, L. W.

Veach, G. F. Parker, W. M. McGaughey, C. L. Aker, and C. A. Stayton. Twenty-three patients were examined; seven of these received a clinical diagnosis of early cancer or probable cancer which required further study and treatment.

Diagnostic Clinic No. 2—Freeman Greene County Hospital, Linton, Indiana. October 21, 1942. Doctors present: D. C. Barrett, of the State Board of Health, M. E. Tomak, G. C. Porter and C. A. Stayton. Twenty-six patients were examined; three of these received a diagnosis of probable malignancies, and three a diagnosis of benign cystic tumors requiring surgical removal.

The report of each examination was written in longhand and signed by the physicians who examined the patient. This report was then typewritten in duplicate. The original report was mailed to the patient's physician and the duplicate was filed in the hospital where the clinic was held. The longhand drafts are in a confidential file at the state headquarters of the Women's Field Army. Physicians' names were not used in any of the newspaper publicity, and no treatment or laboratory study was attempted. The patient was informed of any condition requiring treatment or further examination, and a letter was sent to the patient by the Women's Field Army the day the report of the examination was mailed to the family physician.

The distribution of educational literature, talks by physicians, radio broadcasts, and movies were activities in each county organized by the Women's Field Army. The state office is located at 362 Claypool Hotel, Indianapolis. Mrs. Ronald M. Hazen is the new state commander.

The committee expresses appreciation to all officers and members of the state association, the headquarters staff, and the officers of the Women's Field Army for their coöperation. Mrs. Olive Beldon Lewis, executive secretary, did splendid work for the organization.

Much progress has been made during the last year, but many patients with curable cancer became incurable because they did not have the necessary knowledge about cancer.

The following recommendations are submitted:

1. Active participation in the cancer control program by each county medical society.

2. Diagnostic cancer clinics to be organized in all counties where such service is not now available.

3. The appointment of a committee of the state medical association to study the advisability of building a hospital to be devoted exclusively to the treatment and care of patients afflicted with cancer.

Chester A. Stayton, M.D., *Chairman*,
E. E. Padgett, M.D.,
D. C. McClelland, M.D.,
Earle V. Wiseman, M.D.,
M. B. Gevirtz, M.D.

COMMITTEE ON VENEREAL DISEASE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Committee on Venereal Disease of the Indiana State Medical Association has had nothing referred to it for action during the past year; consequently no meetings have been held. The membership of the committee is ready at all times to function and will meet whenever there is any occasion requiring same.

Minor W. Miller, M.D., *Chairman*,
F. R. N. Carter, M.D.,
B. W. Rhamy, M.D.,
E. O. Nay, M.D.,
W. P. Morton, M.D.,
L. E. Dupes, M.D.,
Lowell Green, M.D.

COMMITTEE ON INDUSTRIAL HEALTH

House of Delegates,
Indiana State Medical Association.

Gentlemen:

I. EDUCATIONAL INDUSTRIAL HEALTH PROGRAM.

The Committee on Industrial Health of the Indiana State Medical Association begs to submit the following report of its activities to date.

In the fall of 1942 your committee was asked by Dr. C. D. Selby, chairman of the Industrial Health and Medicine Committee of Procurement and Assignment Service, and Dr. Carl M. Peterson, secretary of the Council on Industrial Health of the American Medical Association, to prepare and perfect an educational program on industrial health. The main purpose of the program was to train doctors in the various industrial fields along industrial, medical and surgical lines, in order better to enable them to cope with the present-day industrial problems, also to alleviate lost time in the various plants as a result of industrial accidents and illnesses.

The second part of the program was to be a three weeks' intensive training program for the doctors desiring to do industrial medicine and surgery only, or, in other words, for those desiring to do full-time plant work.

This program was to be an experiment by the Indiana State Medical Association, and if it proved to be successful, it was to be used as a model working program for the other states of the Union.

In consideration of the fact that about 85 to 90 per cent of all industrial and medical work is done by the part-time physician, it was felt that we should have an intensive postgraduate course for two days. Several outstanding men in the United States, vitally interested in industrial work, were

asked to speak at Indianapolis, and to present their various problems in a concentrated form to our association.

Dr. Louis W. Spolyar and Dr. W. D. Gatch were asked to formulate the program and obtain a place for the meeting. The program which they prepared was submitted to the committee for approval and was adopted.

Through Dr. Spolyar's efforts funds were obtained from the Social Security Act through the Bureau of Industrial Hygiene of the Indiana State Board of Health, which made it possible to allow these out-of-town speakers a small compensation, plus their expenses.

This program was indeed one of the highest types which it was possible to arrange, and the speakers did a very excellent piece of work. The attendance was well over two hundred, and the comments were most gratifying.

The details of this program have been published in the February issue of the *Indiana State Medical Journal*, and it is quite unnecessary to reiterate them at this time.

Drs. Selby and Peterson expressed their gratitude regarding the program as carried out at Indianapolis, and also the program which was prepared and outlined for the doctors wishing to do full-time industrial work.

Doctors already in industry, especially trained along these lines, are asked to give a certain amount of their time, using their plants as clinics, to help train the doctor desiring to take the three weeks' course. Without exception these industrial doctors have all agreed to impart as much knowledge as possible to these applicants, without charge. We appreciate that there will not be a large number taking the course, but it is available for those who care to take advantage of it.

II. OTHER COMMITTEE ACTIVITIES.

Your committee also attended a meeting with the legislators interested in House Bill No. 11, as well as Mr. Warren W. Martin, chairman of the State Industrial Board, and representatives from the various other organizations of the state interested in the subject of employment of the physically-handicapped individuals. This bill was reviewed and certain changes suggested and adopted. It was then presented to the legislature and made a law. There are, however, still some bugs in this bill which will have to be worked out before the law becomes as valuable as we had hoped it would be.

Your committee hopes to have another meeting with the Industrial Board in the near future, in the hope of being able to iron out these various matters now in question.

* * *

Your committee received a communication in October, 1942, from the Council on Industrial Health of the American Medical Association, stating that three companies in Indiana had written to the War Production Board about their interest in developing or extending their industrial health programs. These companies were contacted at once by members of the committee in their locality, and the matter was promptly taken care of, apparently to the satisfaction of these companies.

* * *

Your committee also submitted copies of the Indiana Workmen's Compensation Schedule, covering permanent disability rates for the most common injuries. These copies were distributed at the last state medical meeting, and we hope they have been of some service as desk references.

* * *

A letter written to all of the members of the committee, asking their opinion regarding patients taking sulfonamides, as to whether they should be permitted to work while under the influence of these drugs. It was unanimously agreed that any individual sick enough to take these drugs was indeed too sick to be on active duty, due to the great risk to the plants in permitting employees to work while taking sulfonamides.

* * *

Your committee particularly wants to compliment and thank Dr. Louis Spolyar for the vast amount of work he did on the industrial health program; also Mr. Tom Hendricks for his very excellent aid and coöperation, and Dr. W. D. Gatch for his helpful advice and for the use of the facilities at the Indiana University School of Medicine.

We all have missed the fine counsel and aid of our past chairman, Captain C. V. Rozelle, who is now serving in the United States Army.

E. S. Jones, M.D., *Chairman*,
E. B. Mumford, M.D.,
V. E. Harmon, M.D.,
L. S. McKeeman, M.D.,
A. G. Kammer, M.D.,
J. C. Burkle, M.D.,
C. A. Weller, M.D.

COMMITTEE TO STUDY CULTISTS AND IRREGULAR PRACTITIONERS

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Because of many factors no meeting of the Committee to Study Cultists and Irregular Practitioners has been held this year. Due to the absence of so many physicians in the Army, cultists are busier than ever. Because Indiana has no adequate enforcement of inadequate laws regulating the cultists, our state has more than its share of these people. It should be noted, moreover, that osteopaths are daily violating the law governing the practice in that they practically universally dispense and prescribe medicine.

Your chairman still feels that until our associa-

tion sees fit to sponsor legislation to cope with this situation, Indiana will continue to be the prey of these cultists and illegal practitioners. We advocate again an annual registration by our State Board of Medical Registration of all persons in the state claiming to practice the healing art by any system, and a small registration fee annually to be used by the State Board of Registration for the enforcement of the laws regulating such practices.

It must be obvious to all that to try to cope with these matters locally is impractical and unworkable, except in very small communities. If we wish to correct these matters in our state, a change of our attitude must come.

ALFRED ELLISON, M.D., *Chairman*,
HARRY HOWARD, M.D.,
C. L. BOYD, M.D.,
M. R. LOHMAN, M.D.,
W. F. KELLY, M.D.

* * *

MINORITY REPORT

My constituents, the Fort Wayne Medical Society, in regular session voted to disapprove the payment of an annual registration fee for physicians. Therefore, I cannot subscribe to the report of Doctor Ellison, except insofar as approving the activity which has taken place in the past.

M. R. LOHMAN, M.D.

COMMITTEE ON INDIANA INTER-PROFESSIONAL HEALTH COUNCIL

(As no business has been transacted through this committee during the year, the committee has no report to make at this time.)

ANTI-TUBERCULOSIS COMMITTEE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Anti-Tuberculosis Committee has been active in the past year in stimulating tuberculosis control work that is sponsored by organized medicine.

A luncheon meeting was held at the time of the annual meeting of the state medical association. This meeting was well attended by members of the county tuberculosis committees and physicians particularly interested in chest diseases. Fifty physicians attended the meeting. The program was held in coöperation with the Indiana Chapter of the American College of Chest Physicians. Our principal speaker was Dr. Paul Turner, superintendent of the Kentucky State Sanatorium. His subject was "Pitfalls in Pneumothorax Treatment." Dr. Ben Brock, superintendent of Waverly Hill Sanatorium, Louisville, discussed bronchoscopic lesions. Several other interesting papers were presented and an x-ray conference ended the discussion.

The midwinter meeting of the committee was held at the Columbia Club on March 10. At this meeting a plan of tuberculosis survey in some of the rural counties was discussed and referred for conference with the State Tuberculosis Association. Control of tuberculosis in industry was also discussed and it was agreed that further use of x-ray in the examination of industrial workers would result in the discovery of many case of tuberculosis and prevent the infection of fellow workers. Pamphlets dealing with industrial tuberculosis prepared by the American College of Chest Physicians were mailed to each member of the county tuberculosis committees. Representatives of the State Board of Health and the State Tuberculosis Association attended the midwinter meeting.

Sixty county medical societies have tuberculosis committees with 178 members.

Your committee feels that the war will cause an increase in the tuberculosis rate because of overcrowding in our industrial cities and the employment of young girls in factories. It is therefore advised that the committee work be continued.

J. H. STYGALL, M.D., *Chairman*,
J. V. PACE, M.D.,
H. B. PIRKLE, M.D.,
P. D. CRIMM, M.D.,
JAMES MCBRIDE, M.D.,
M. H. DRAPER, M.D.,
P. H. BECKER, M.D.

COMMITTEE ON CONSERVATION OF VISION

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Committee on Conservation of Vision has held three meetings during the past year. The first meeting was utilized for the planning of the annual Conservation of Vision breakfast. The second meeting was the breakfast itself, held at the French Lick Springs Hotel on the second morning of the annual session of the Indiana State Medical Association. We were very fortunate in having Harry S. Gradle of Chicago as our guest speaker. Doctor Gradle is an ophthalmologist of international reputation. His work in all phases of sight conservation has been outstanding. He made many worthwhile suggestions regarding the promotion of sight conservation in Indiana, based upon his general knowledge of this work in all parts of the country. About thirty men were present from many counties of our state and they all felt well repaid for the extra effort which they had made to be in attendance at our early morning meeting.

Our committee met for its third session to plan the subjects and authors for the annual Conserva-

tion of Vision number of our state medical JOURNAL. We believe that the men who accepted assignments to prepare papers did an excellent job for us again this year.

Another breakfast meeting is now being planned, to be held at the Claypool Hotel on Wednesday morning, September 29, at 7:30. We confidently expect a good turnout for this meeting, since the men who have attended our previous meetings have expressed an enthusiastic desire for more of them.

One of the most valuable steps in sight conservation which has been made in this state during recent years has been the ban of fireworks on the Fourth of July. It is the opinion of your committee that the next legislative step in eyesight conservation should be the abolition of the sale of air rifles. In the hands of irresponsible children air rifles represent a great menace to the sight of adults as well as of children. Every physician has had at least one experience to verify this statement.

R. J. MASTERS, M.D., *Chairman*,
E. E. HOLLAND, M.D.,
J. V. CASSADY, M.D.,
O. T. ALLEN, M.D.,
M. G. EREHART, M.D.

COMMITTEE ON HARD OF HEARING

(As no business has been transacted through this committee during the year, the committee has no report to make at this time.)

WAR PARTICIPATION COMMITTEE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The purview of Procurement and Assignment Service takes us beyond the space allotted here. An immense volume of business continues to go over the desk. Correspondence, telegrams, long distance calls, appeals, interviews, letters from members of Congress and even from the President all call for time and attention day in and day out.

We have to deal with the United States Public Health Service, the Directing Board of Procurement and Assignment Service, the offices of the Surgeons General of the Army and Navy, and occasionally with the Secretary of War. This necessitates full-swing control.

At this time in 1942 we had 862 physicians in service; today there are 1180. Two hundred and seventy-five have been rejected as physically unfit. Indiana can spare 65 additional physicians to the armed forces. Only one of the rural counties can spare a single physician; 86 of the 92 counties can not send another one. Our quota today is nil, and remains at the 100 per cent level. The one exception of a county failing to meet its quota entails factors entirely beyond Procurement and Assignment Service responsibility.

A number of stringent areas originally created have now been taken care of. While there are a number of small towns where a physician could well be utilized, there is no community where medical coverage is inadequate or hardships are suffered—only inconvenience.

The picture changes from day to day. Physicians die, become disabled, or remove to another location —all being factors beyond our control. As the war goes on, with older physicians largely assuming the responsibility on the home front, acute and critical conditions will arise. Two factors enter into the question: (a) death, disability and removal; (b) 75 per cent of the new graduates will enter service, leaving only the 25 per cent who will be rejected on physical grounds from which to recruit future needs, in lieu of the former 5,000 new graduates. This means that next year we will have 1,400 for the nation's needs, and 1,500 for 1945 when the full complement of 6,000 will have accrued from the speeded-up program. A few physicians are filtering back to established practices by reason of separation from service for physical disability.

Last year's report contained an appeal for the establishment of an over-all advisory group to be appointed by the Governor to assist the Indiana State Medical Association and the Procurement and Assignment Service in matters of public policy as related to public health, civilian medical coverage, and the maintenance of an equitable distribution of physicians. The Committee instead desires to request the proper body representing the association to consent to the following procedure: Upon refusal of a physician to apply when declared available, or when he rejects a commission, or if a disqualified physician refuses to consent to allocation, then his name shall be certified by the state chairman to the state association, which in turn will notify his county society if deemed expedient.

One of the most serious problems confronting us today is the scarcity of residents and interns. Hospital service is being severely crippled and the civilian medical service impaired; in addition, the educational program as to medical students is severely hampered. We can not produce physicians to meet the future needs of the armed forces without adequate facilities to educate and train them. Last year there were 5,300 graduates to fill 8,900 vacancies in internships and residencies. These facts are being pointed out to the Surgeons General of the Army and Navy.

Last year the question of horse-and-buggy mileage was referred to the House of Delegates. This year we are happy to state that that has been corrected by local medical societies themselves and that no complaints are being made. We have asked the Secretary of War in two instances to consent to the resignation of commissioned medical officers to meet the urgency of local communities in which

there was no other possible solution. It means a great deal to ask for the discharge of a medical officer whom it has cost the government several thousand dollars to train.

As we look to the future, let us indulge in no wishful thinking. A long and circuitous road lies ahead. It seems rather fatuous for people in civilian life to complain of so-called "hardships." The right to complain remains a prerogative of the men in service. We count coupons while they dodge bullets; we enjoy home while they fight for the day when they may return home. A probable 3,000,000 of them may never come home, or, on their way back will stop in government hospitals. As we survey the future then, let us think in terms of their rehabilitation and be prepared to assist in that program. May we never again be guilty of applying to the ex-service men the contemptuous term—"goldbricker." Rather let us look to the problem of their social, economic, industrial and psychologic restabilization. As old problems are solved, new ones will arise.

Whatever problems arise in the changing picture, the profession of Indiana will meet them in the future as in the past. We have had the hearty coöperation of everybody from the offices of the Surgeons General of the Army and Navy, the Indiana State Medical Association and the county Procurement and Assignment Service advisory groups, including the personnel in Mr. Hendricks' office, for which we acknowledge everlasting obligation and thanks.

C. R. Bird, M.D., *Chairman*,
J. R. Newcomb, M.D., *Vice-chairman*,
E. B. Mumford, M.D.,
W. M. Miley, M.D.,
Carleton B. McCulloch, M.D.,
Glen W. Lee, M.D.,
Merrill S. Davis, M.D.

COMMITTEE ON PHYSICAL THERAPY

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The practice of physical therapy has been seriously jeopardized, and many patients who could be materially benefited by physical therapy treatments have been denied such opportunity by the War Production Board.

On February 15, 1943, the War Production Board issued, without warning, a Limitation Order known as L 259. This edict came to our attention, in a round about way, over a month after it had been issued. Your committee immediately contacted Senators VanNuys and Willis, as well as every member of the Indiana Congressional delegation. These gentlemen were highly coöperative and took the matter up personally with the War Production Board. A copy of every response was sent this committee. These letters, although signed by different individuals, were identical in composition and were obviously written by the same man.

The information obtained to date is as follows:

1. L 259 prohibits the manufacture of and sale to physicians all forms of physical therapy modalities accepted by the Council on Physical Therapy of the A.M.A.

2. That L 259 was drawn up with the assistance of "prominent and capable scientific and medical authorities." Your committee has been unable to ascertain the names of these "alleged" authorities.

3. That replacement parts for equipment now in use can be obtained. The chairman of this committee, who specializes in electrotherapeutics, now has two short-wave diathermies "on the shelf" because he has been unable to obtain replacement parts; also Dr. Olin West, in a letter dated April 22, 1943, suggests that information obtained by him from unrevealed sources in Washington indicate that certain replacement parts (especially diathermy tubes) are not, and *will not* be available. available.

4. That other Limitation Orders affecting the practice of medicine are in effect (x-ray L 206; medical sterilizer equipment L 266, etc.). One wonders how many hidden restrictions may govern other medical necessities.

5. That these restricted items are available to government lease-lend.

6. That the War Production Board states very definitely that L 259 *will not* be modified.

RECOMMENDATIONS

1. Your committee feels that L 259 and other Limitation Orders pertaining to the practice of medicine are a definite national health menace and respectfully suggests that a thorough investigation be made.

2. We recommend that a legal interpretation of L 259 be obtained at the earliest possible moment. (The Chairman of the Committee on Physical Therapy is perfectly willing to appear before the House of Delegates for questioning or to present to that body all communications received pertaining to this subject.)

3. Your committee feels that the physicians of the state of Indiana should be given the opportunity of learning more about the practice of physiotherapy, not only for their own good, but also that they may be better enabled to combat the various cults. We recommend, therefore, that the program of each annual convention include a paper on some form of physiotherapy by a nationally-known medical authority.

APPENDIX

We wish to express to Mr. Thomas Hendricks and

his efficient staff our sincere appreciation for their invaluable aid.

N. H. Prentiss, *Chairman*,
H. W. Smelser,
A. P. Hauss,
Don Bowers.

MEDICAL RELIEF COMMITTEE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Medical Relief Committee has had no regularly called meeting during the year. Your chairman has talked personally with most of the members at some time during the year. Contact was maintained with the State Department of Public Welfare by attending the monthly meetings of the State Advisory Committee on Medical Aid of the welfare department.

It is difficult to give a concise report covering a year in medical relief as so many changes occur within the twelve-month period. However, the following points should be mentioned:

1. Enactment of new legislation affecting admissions to hospitals, i.e., Indiana University hospitals, the Riley, and county hospitals.

2. Authority to commit patients, given to the county welfare departments.

3. Doctors now to be paid for examining such patients and filling out papers for same.

4. New legislation whereby the doctor may be paid directly by the State Department of Public Welfare instead of by the individual patient.

5. A detailed study was begun of four representative counties, the various facts and comparisons to be incorporated in this report. It is deemed best to postpone such a report until perhaps three years can be included in the study, for the following reasons:

(a) County units are small and percentages are apt to be misleading.

(b) The welfare load is now quite a varying figure because of increase of family incomes and reduction of the number on relief.

(c) Many doctors are away in the service, and the scarcity of doctors reduces the attention given cases on relief, just as has been the case with those patients who are able to pay for medical services.

The county is the unit of the welfare department. Each county has a welfare board, appointed by the judge of the county. The local medical society should see to it that some active member is appointed to the county welfare board—this is very important!

Each county medical society decides whether or not that county shall coöperate in a plan with the welfare group. About forty counties now have working plans with the welfare department. Any county welfare department will gladly discuss these problems with the local medical society.

Lastly, there has been no progress made in the reduction of paper work for doctors participating in the care of the patients under the welfare department.

E. O. Asher, M.D., *Chairman*,
E. F. Boggs, M.D.,
A. E. Stinson, M.D.,
J. L. Wyatt, M.D.,
J. T. Oliphant, M.D.,
C. B. Paynter, M.D.,
R. W. Waterson, ex-officio.

COMMITTEE ON CIVILIAN DEFENSE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Committee on Civilian Defense can best reply to its work by giving an outline of the program of the State Emergency Medical Services. During the fiscal year just past, the chairman of your committee has accepted the position of State Chief of Emergency Medical Services, vacated by Dr. John W. Ferree on his entry into the service.

Several meetings of the State Emergency Medical Services Advisory Council were called during the year and problems of policy discussed. Referring each problem to the council representative concerned, for their ideas on the standard to be followed, and then group discussion, is the procedure in all matters of policy. Bulletins issued to local chiefs of Emergency Medical Services reflect the community of thought of the Advisory Council interpretation to the local level. The organization of local groups has progressed well, in spite of vacancies created by doctors entering the armed forces, and most communities are protected by a complete organization, with adequate plans for action. Field visits to assist in local organization are available on request. Several talks have been made to County Medical Societies, explaining the Emergency Medical Services.

Information on the inventory of all stocks of blood and plasma in the hospitals of the state is being kept current through means of reports submitted monthly. Such data would be of great value in either an incident of enemy action or a great natural catastrophe. These materials could be loaned to supplement the stocks of plasma already stored in strategic communities in the state by the Office of Civilian Defense. Local chiefs of Emergency Medical Services should immediately contact the State Chief of Emergency Medical Services, if an incident occurs that would indicate the use of more plasma than they have available. Arrangements have been completed for plasma transportation in the state with the Civil Air Patrol and the State Police.

A program of War Civilian Security, including compensation for certified Office of Civilian Defense workers and trainees, is being worked out at the present time. The procedures in case of injury are known to the local Emergency Medical Service chiefs and the County Office of Civilian Defense directors. This financial protection, of course, also covers all doctors on civilian defense duties. Proof of membership in local Emergency Medical staff is by certification from the local chief to the state office. The identification card issued on such certification is also a pass for movement during an incident. Further ease for movement for doctors is by means of an identification sticker, approved by the Indiana State Medical Association, for automobiles. This sticker is issued by a pharmaceutical house to the profession on request.

Affiliated units of physicians and nurses for Indianapolis, Fort Wayne and Evansville are being formed. Those associated will have inactive status in the United States Public Health Service, and will be activated only for brief periods of emergency service until the Medical Corps of the Army can arrive to relieve them.

Medical supplies and equipment are starting to come in to some of the communities designated by the War and Navy departments as of first preference. The selection of these communities was made entirely by the services on the basis of their likelihood of experiencing sabotage or enemy action. In other communities various plans have gone forward to gain essential medical supplies, by local purchase or group pooling of supplies on hand.

The entire Civilian Defense Program, from a protection angle, is one of preparedness. We hope that it will not be necessary to activate because of enemy action, but it has been said, "It is better to have something and not need it, than to need it, and not have it." All phases of civilian defense have shown their worth in floods and tornadoes experienced in Indiana in the past year, and it might be a thought to contemplate the continuance of some form of permanent emergency medical organization when peace again removes the threat of enemy action.

HENRY S. LEONARD, M.D.,
Chairman.

OPA MEDICAL ADVISORY COMMITTEE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

During January, 1943, the State Office of Price Administration requested the coöperation of the Indiana State Medical Association in food rationing. This induced Dr. C. H. McCaskey to appoint an OPA Committee of the Indiana State Medical Association. The committee asked the dietitians of Indianapolis to appoint a committee from their association to work in collaboration with it. In April these committees were requested by the State Office of Price Administration to determine figures for the amount of foods that would be needed for maximal diets in disease states. Several meetings were held. The committee decided that patients with diabetes mellitus, peptic ulcer, colitis and obesity would need extra ration points. Maximal diets for these diseases were computed by the various dietitians, and the totals were agreed upon by the committee. A report of this work was published in THE JOURNAL of the Indiana State Medical Association in June, 1943.

Another request of the State Office of Price Administration was that each county medical society appoint a local committee to whom the local food rationing boards might appeal for advice before granting questionable or exorbitant requests for food. Most county medical societies have appointed such committees.

MEDICAL COMMITTEE

C. L. RUDESILL, M.D., *Chairman,*
R. A. SOLOMON, M.D.,
W. M. DUGAN, M.D.

DIETITIANS' COMMITTEE

JEAN CROOKS, *Chairman,*
Indiana University Hospitals.
GERTRUDE GALLAGHER,
St. Vincent Hospital.
THERESA L. CASAGRANDE,
Indianapolis City Hospital.
ANN EGGERS,
Methodist Hospital.

MAKE YOUR RESERVATION

NOW FOR THE ANNUAL

CONVENTION OF THE

INDIANA STATE MEDICAL

ASSOCIATION

AT INDIANAPOLIS

SEPTEMBER 28

29, AND 30

HOUSE OF DELEGATES, INDIANA STATE MEDICAL ASSOCIATION

Indianapolis, September 28, 29 and 30, 1943

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ALLEN	
M. R. Lohman, Fort Wayne	L. S. McKeeman, Fort Wayne
W. C. Wright, Fort Wayne	John T. Short, Fort Wayne
M. B. Catlett, Fort Wayne	C. B. Parker, Fort Wayne
BARTHOLOMEW	
BENTON	
V. L. Turley, Fowler	W. H. Altier, Fowler
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Karl Helm, Shoals	J. W. Strange, Loogootee
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John Habermel, New Albany	C. E. Briscoe, New Albany
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J. Carl Freed, Attica	W. A. Johnson, Perrysville
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G. H. Kamman, Seymour	Lt. Comdr. W. Durbin Day Seymour (now in U. S. Navy)
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S. I. Green, St. Bernice	D. C. Shaff, Clinton

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H. W. Griest, Monticello	J. P. Galbreth, Burnettsville
WHITLEY	
Paul Garber, South Whitley	E. V. Nolt, Columbia City

REFERENCE COMMITTEES

1943

1. SECTIONS AND SECTION WORK:

Chairman, M. R. Lohman, Fort Wayne (Allen)
Robert F. Harris, Noblesville (Hamilton)
W. M. Miley, Anderson (Madison)
Rollin H. Moser, Indianapolis (Marion)
Minor Miller, Evansville (Vanderburgh)

2. RULES AND ORDER OF BUSINESS:

Chairman, Marlow Manion, Indianapolis (Marion)
Jesse E. Ferrell, Fortville (Hancock)
J. R. Bloomer, Rockville (Parke)
J. S. Robison, Winchester (Randolph)
Robert R. Acre, Evansville (Vanderburgh)

3. MEDICAL EDUCATION AND HOSPITALS:

Chairman, J O. Ritchey, Indianapolis (Marion)
Goethe Link, Indianapolis (Marion)
Gordon A. Thomas, Lafayette (Tippecanoe)
E. O. Nay, Terre Haute (Vigo)
C. C. Tucker, Greencastle (Putnam)

4. PUBLIC POLICY AND LEGISLATION:

Chairman, W. H. Howard, Hammond (Lake)
Oran A. Province, Franklin (Johnson)
K G. Kohlstaedt, Indianapolis (Marion)
F. R. N. Carter, South Bend (St. Joseph)
John K. Spears, Paoli (Orange)

5. PUBLICITY:

Chairman, G. V. Cring, Portland (Jay)
Earl VanReed, Lafayette (Tippecanoe)
C. C. Atkins, Rushville (Rush)
M. F. Daubenheyer, Charlestown (Ripley)
W. H. Lane, Angola (Steuben)

6. HYGIENE AND PUBLIC HEALTH:

Chairman, E. F. Boggs, Indianapolis (Marion)
J. N. Kelly, LaPorte (LaPorte)
A. E Stinson, Rochester (Fulton)
Ralph J. Harvey, Whitestown (Boone)
J. M Burk, Decatur (Adams)

7. AMENDMENTS TO CONSTITUTION AND BY-LAWS:

Chairman, B. W. Egan, Logansport (Cass)
J. A. VanKirk, Frankfort (Clinton)
J. T. Morrison, Greensburg (Decatur)
L. Neff Ashworth, Connersville (Fayette)
Paul J. Blessinger, Jasper (Dubois)

8. REPORTS OF OFFICERS:

Chairman, C. S. Black, Warren (Huntington)
W. U. Kennedy, New Castle (Henry)
William N. Wishard, Jr., Indianapolis (Marion)
W. E. Jenkinson, Mount Vernon (Posey)
V. L. Turley, Fowler (Benton)

9. COMMITTEE ON CREDENTIALS:

Chairman, George Daniels, Marion (Grant)
William E. Amy, Corydon (Harrison)
Boaz Yocum, Coal City (Owen)
C. F. Fletcher, Sunman (Dearborn)
Paul Garber, South Whitley (Whitley)

10. COMMITTEE ON MISCELLANEOUS BUSINESS:

Chairman, S. M. Cotton, Goldsmith (Tipton)
O. G. Brubaker, North Manchester (Wabash)
J. R. Crowder, Sullivan (Sullivan)
L. D. Holliday, Fairmount (Grant)
John Habermel, New Albany (Floyd)

LIST OF PRESIDENTS OF THE INDIANA STATE MEDICAL ASSOCIATION SINCE ITS ORGANIZATION

Name and Residence	*Elected*	*Served*
*Livingston Dunlap, Indianapolis	1849	1849
*William T. S. Cornett, Versailles	1849	1850
*Ashahel Clapp, New Albany	1850	1851
*George W. Mears, Indianapolis	1851	1852
*Jeremiah H. Brower, Lawrenceburg	1852	1853
*Elizur H. Deming, Lafayette	1853	1854
*Madison J. Bray, Evansville	1854	1855
*William Lomax, Marion	1855	1856
*Daniel Meeker, LaPorte	1856	1857
*Talbott Bullard, Indianapolis	1857	1858
*Nathan Johnson, Cambridge City	1858	1859
*David Hutchinson, Mooresville	1859	1860
*Benjamin S. Woodworth, Fort Wayne	1860	1861
*Theophilus Parvin, Indianapolis	1861	1862
*James F. Hibbard, Richmond	1862	1863
*John Sloan, New Albany	1863	1864
*John Moffett (acting), Rushville	1864	1864
*Samuel M. Linton, Columbus	1864	1865
*Wilson Lockhart (acting), Danville	1865	1865
*Myron H. Harding, Lawrenceburg	1865	1866
*Vierling Kersey, Richmond	1866	1867
*John S. Bobbs, Indianapolis	1867	1868
*Nathaniel Field, Jeffersonville	1868	1869
*George Sutton, Aurora	1869	1870
*Robert M. Todd, Indianapolis	1870	1871
*Henry P. Ayres, Fort Wayne	1871	1872
*Joel Pennington, Milton	1872	1873
*Isaac Casselbery, Evansville	1873	.....
*Wilson Hobbs, Knightstown	1873	1874
*Richard E. Haughton, Richmond	1874	1875
*John H. Helm, Peru	1875	1876
*Samuel S. Boyd, Dublin	1876	1877
*Luther D. Waterman, Indianapolis	1877	1878
*Louis Humphreys, South Bend	1878	.....
*Benj. Newland (acting), Bedford (v.-p.)	1878	1879
*Jacob R. Weist, Richmond	1879	1880
*Thomas B. Harvey, Indianapolis	1880	1881
*Marshall Sexton, Rushville	1881	1882
*William H. Bell, Logansport	1882	1883
*Samuel E. Munford, Princeton	1883	1884
*James H. Woodburn, Indianapolis	1884	1885
*James S. Gregg, Fort Wayne	1885	1886
*General W. H. Kemper, Muncie	1886	1887
*Samuel H. Charlton, Seymour	1887	1888
*William N. Wishard, Indianapolis	1888	1889
*James D. Gatch, Lawrenceburg	1889	1890
*Gonsolvo C. Smythe, Greencastle	1890	1891
*Edwin Walker, Evansville	1891	1892
*George F. Beasley, Lafayette	1892	1893
*Charles A. Daugherty, South Bend	1893	1894
*Elijah S. Elder, Indianapolis	1894	.....
Charles S. Bond (acting), Richmond	1894	1895
*Miles F. Porter, Fort Wayne	1895	1896
*James H. Ford, Wabash	1896	1897
*William N. Wishard, Indianapolis	1897	1898
*John C. Sexton, Rushville	1898	1899
*Walker Schell, Terre Haute	1899	1900
*George W. McCaskey, Fort Wayne	1900	1901
*Alembert W. Brayton, Indianapolis	1901	1902
*John B. Berteling, South Bend	1902	1903
*Jonas Stewart, Anderson	1903	1904
*George T. MacCoy, Columbus	1904	1905
*George H. Grant, Richmond	1905	1906
*George J. Cook, Indianapolis	1906	1907
*David C. Peyton, Jeffersonville	1907	1908
*George D. Kahlo, French Lick	1908	1909
*Thomas C. Kennedy, Shelbyville	1909	1910
*Frederic C. Heath, Indianapolis	1910	1911
*William F. Howat, Hammond	1911	1912
*A. C. Kimberlin, Indianapolis	1912	1913
*John P. Salb, Jasper	1913	1914
*Frank B. Wynn, Indianapolis	1914	1915
*George F. Keiper, Lafayette	1915	1916
*John H. Oliver, Indianapolis	1916	1917
*Joseph Rilus Eastman, Indianapolis	1917	1918
William H. Stemm, North Vernon	1918	1919
*Charles H. McCully, Logansport	1919	1920
*David Ross, Indianapolis	1920	1921
William R. Davidson, Evansville	1921	1922
*Charles H. Good, Huntington	1922	1923
*Samuel E. Earp, Indianapolis	1923	1924
E. M. Shanklin, Hammond	1924	1925
Charles N. Combs, Terre Haute	1925	1926
*Frank W. Cregor, Indianapolis	1926	1927
George R. Daniels, Marion	1926	1928
Charles E. Gillespie, Seymour	1927	1929
Angus C. McDonald, Warsaw	1928	1930
Alois B. Graham, Indianapolis	1929	1931
Franklin Smith Crockett, Lafayette	1930	1932
Joseph H. Weinstein, Terre Haute	1931	1933
Everett E. Padgett, Indianapolis	1932	1934
*Walter J. Leach, New Albany	1933	1935
Roscoe L. Sensenich, South Bend	1934	1936
*Edmund Dougan Clark, Indianapolis	1935	1937
Herman M. Baker, Evansville	1936	1938
Edmund M. Van Buskirk, Fort Wayne	1937	1939
Karl R. Ruddell, Indianapolis	1938	1940
Albert M. Mitchell, Terre Haute	1939	1941
M. A. Austin, Anderson	1940	1942
C. H. McCaskey, Indianapolis	1941	1943

* *Deceased*

DATA FROM PREVIOUS SESSIONS

Year	*Session*	*Place*	*Registration*
1908	59th	French Lick	312
1909	60th	Terre Haute	421
1910	61st	Fort Wayne	450
1911	62nd	Indianapolis	748
1912	63rd	Indianapolis	590
1913	64th	West Baden	312
1914	65th	Lafayette	527
1915	66th	Indianapolis	646
1916	67th	Fort Wayne	381
1917	68th	Evansville	270
1918	69th	Indianapolis	388
1919	70th	Indianapolis	.....
1920	71st	South Bend	421
1921	72nd	Indianapolis	550
1922	73rd	Muncie	522
1923	74th	Terre Haute	823
1924	75th	Indianapolis	1,012
1925	76th	Marion	800
1926	77th	West Baden	900
1927	78th	Indianapolis	1,500
1928	79th	Gary	892
1929	80th	Evansville	814
1930	81st	Fort Wayne	1,115
1931	82nd	Indianapolis	1,033
1932	83rd	Michigan City	904
1933	84th	Frenck Lick	637
1934	85th	Indianapolis	1,814
1935	86th	Gary	1,011
1936	87th	South Bend	1,150
1937	88th	Frenck Lick	1,154
1938	89th	Indianapolis	1,751
1939	90th	Fort Wayne	1,332
1940	91st	Frenck Lick	1,064
1941	92nd	Indianapolis	1,890
1942	93rd	Frenck Lick	706
1943	94th	Indianapolis	?

Exhibitors

Booth Number

1-2—CAMEL CIGARETTES, New York, N. Y.
3-4—COCA COLA COMPANY, Atlanta, Ga.
5—PARKE, DAVIS & COMPANY, Detroit, Mich.
6-7—CHEMICO LABORATORIES, INC., Indianapolis, Ind.
8—THE KELLY-KOETT MFG. CO., INC., Indianapolis, Ind.
9—A. S. ALOE COMPANY, St. Louis, Mo.
10—GERBER PRODUCTS COMPANY, Fremont, Mich.
11—PET MILK SALES CORP., St. Louis, Mo.
12—"THE 'JUNKET' FOLKS," Little Falls, N. Y.
13—THE C. V. MOSBY CO., St. Louis, Mo.
14—PETROGALAR LABORATORIES, INC., Chicago, Ill.
15—F. E. YOUNG AND COMPANY, Chicago, Ill.
16—SCHERING CORPORATION, Bloomfield, N. J.
17—HOLLAND-RANTOS COMPANY, INC., New York, N. Y.
18—MELLIN'S FOOD COMPANY, Boston, Mass.
19—THE KELLOGG COMPANY, Battle Creek, Mich.
20—THE CIBA PHARMACEUTICAL CO., Summit, N. J.
21—DICK X-RAY COMPANY, St. Louis, Mo.
22—C. B. FLEET COMPANY, INC., Lynchburg, Va.
23—NATIONAL LIVE STOCK AND MEAT BOARD, Chicago, Ill.
24—CARNATION COMPANY, Oconomowoc, Wis.
25—J. E. HANGER, INC., Indianapolis, Ind.
26—SPENCER, INC., New Haven, Conn.
27—THE BORDEN COMPANY, New York, N. Y.
28—THE MEDICAL PROTECTIVE CO., Fort Wayne, Ind.
29—WHITE LABORATORIES, INC., Newark, N. J.
30—LEDERLE LABORATORIES, New York, N. Y.
31—M & R DIETETIC LABS., INC., Columbus, Ohio
32—S. H. CAMP & CO., Jackson, Mich.
33—W. B. SAUNDERS CO., Philadelphia, Pa.
34—PICKER X-RAY CORP., New York, N. Y.
35—ELI LILLY AND CO., Indianapolis, Ind.
36—SHARP AND DOHME, INC., Philadelphia, Pa.
37—PHILIP MORRIS & COMPANY, New York, N. Y.
38-39—MEAD JOHNSON & COMPANY, Evansville, Ind.
40—PITMAN-MOORE COMPANY, Indianapolis, Ind.
41—JOHN WYETH AND BROTHER, INC., Philadelphia, Pa.
42—AKRON SURGICAL HOUSE, INC., Indianapolis, Ind.
43—S. M. A. CORPORATION, Chicago, Ill.
44—THE DOHO CHEMICAL CORP., New York, N. Y.
45—GRADWOHL SCHOOL OF LABORATORY TECHNIQUE, St. Louis, Mo.
46—DEPUY MANUFACTURING COMPANY, Warsaw, Ind.
47—H. J. HEINZ COMPANY, Pittsburgh, Pa.
48—AMERICAN HOSPITAL SUPPLY CORP., Chicago, Ill.
49—ORTHO PRODUCTS, INC., Linden, N. J.

Booths 1 and 2

CAMEL CIGARETTES
New York City

CAMEL Cigarettes will exhibit large detailed photographs of equipment used in comparative tests of the five largest-selling brands of cigarettes. Representatives J. S. Cassell and A. L. Hostnick will be available to discuss research. See for the first time the dramatic visualization of nicotine absorption from cigarette smoke in the human respiratory tract. Keep up to the minute on international news with the CAMEL Cigarette Trans-Lux "Flash Bulletins," while you enjoy a supply of slow-burning CAMEL Cigarettes.

Booths 3 and 4

THE COCA-COLA COMPANY
Atlanta, Georgia

Coca-Cola will be served to the delegates with the compliments of The Coca-Cola Company.

Booth 5

PARKE, DAVIS & COMPANY
Detroit, Michigan

At the Parke-Davis Exhibit, which has been streamlined because of present war-time requirements, you will find many new and scientific Pharmaceutical and Biological Products. Included in this display are such outstanding preparations as Phemerol, a non-toxic germicide and antiseptic; Vitamins; Sulfa Drugs; Despeciated Antitoxins, and a number of other products of timely interest. Able and courteous members of the Parke, Davis & Co., staff are in daily attendance to serve you.

Booths 6 and 7

CHEMICO LABORATORIES
Indianapolis

Chemico Laboratories, Inc., takes pleasure in announcing their commercial exhibit at the annual convention of the Indiana State Medical Association at Indianapolis. We cordially invite our many friends to visit our exhibit, which will be in charge of George Schmidt and Kenneth Lloyd.

Booth 8

THE KELLEY-KOETT MFG. CO.
Covington, Kentucky

In space No. 8, the Kelley-Koett Manufacturing Company of Covington, Kentucky, manufacturers of x-ray apparatus, will have an interesting display of x-ray supplies, accessories and replacement parts.

One of the features of this exhibit will be the KELEKET Conservation Plan—a plan for conserving x-ray apparatus by keeping it in proper operating condition, which is a matter of first importance especially in these times when the x-ray plays such an important role, not only in medicine but in the production line of many defense plants.

This exhibit will be in charge of G. E. Geise, Vice-President, assisted by B. J. Anderson of Indianapolis, J. J. Douglas of Louisville, Floyd Tracht of Cincinnati, and J. H. Bell, Sales Director.

Booth 9

A. S. ALOE COMPANY
St. Louis, Missouri

The A. S. Aloe Company will again welcome its friends of the Indiana State Medical Association. Mr. Hawes Dwinell will be in charge of the exhibit, which will include the Sharp & Smith line of stainless steel instruments as well as many new wartime developments. The display will feature merchandise which is still obtainable.

Booth 10

GERBER PRODUCTS COMPANY
Fremont, Michigan

Gerber's CEREAL FOOD and STRAINED OATMEAL are fortified with vitamins of the B-complex and with iron. They are ready-to-serve upon addition of milk or formula. These and the other Gerber Foods are on display. We invite your inspection of the Gerber literature.

Booth 11

PET MILK SALES CORPORATION
St. Louis, Missouri

A complete display of material illustrating the time-saving Pet Milk services available to physicians. Specially trained representatives will be in attendance to give you information about the production of Pet Milk and its use for infant feeding. Miniature cans will be given to each physician visiting the exhibit.

Booth 12

"THE 'JUNKET' FOLKS"
Little Falls, New York

In space No. 12, "The 'Junket' Folks," Chr. Hansen's Laboratory, Inc. Enlarged photos illustrate graphically the action of the rennet enzyme in forming softer, finer milk curds. Display of "Junket" Brand Food Products. Free literature describes dietary uses of rennet-custards in infant, child, convalescent, or post-operative feeding. Well informed attendant on duty at all times.

Booth 13

THE C. V. MOSBY COMPANY
St. Louis, Missouri

New publications and new 1943 editions to be displayed by the C. V. Mosby Company at the 1943 convention of the Indiana State Medical Association will include Titus' "Atlas of Obstetric Technic," Selling's "Synopsis of Neuropsychiatry," Bunch's "Clinical Audiometry," Howles' "A Synopsis of Clinical Syphilis," Hughes' "Reconstructive Surgery of the Eyelids," Regan's "Medical Malpractice," Clendening-Hashinger's "Methods of Treatment," Gradwohl's "Clinical Laboratory Methods and Diagnosis," and Litzenberg's "Synopsis of Obstetrics." A cordial invitation is extended to examine these and the many other publications which will be on display at Booth No. 13. Mr. Donald Chew will be in attendance.

Booth 14

PETROGALAR LABORATORIES
Chicago, Illinois

Physicians are invited to the Petrogalar Exhibit at Booth No. 14. Interesting details on Petrogalar, an aqueous suspension of mineral oil of constant uniformity and excellent palatability, will be related. Petrogalar representatives will gladly furnish anatomical drawings and literature on constipation. This scientific material has been especially developed for the busy practitioner.

Booth 15

F. E. YOUNG AND COMPANY
Chicago

Dr. Young's Rectal Dilators are supplied in sets of four graduated sizes. They are used in the treatment of many conditions which arise from tight or spastic sphincter muscles, including constipation, low back pain, nervousness or neurasthenia, indigestion, nervous headaches, dysmenorrhea, and other conditions where these are associated with spastic sphincter muscles. Complete literature and reprints are available. A cordial welcome awaits all visitors.

Booth 16

SCHERING CORPORATION
Bloomfield, New Jersey

Pure crystalline hormones of known, unvarying potency continue to be featured at the exhibit of the Schering Corporation. Literature will be available, describing the therapeutic applications of such distinguished hormones as Oreton, Progynon, Proluton and Pranone, and representatives will be present to discuss recent clinical reports on these preparations. Demonstration of a new and effective technique for the sublingual administration of Cortate (desoxycorticosterone acetate) should prove interesting, this technique having been described as the simplest, most effective and most economical method of administering the "survival" hormone.

Physicians visiting the Schering exhibit will also have the opportunity to learn of Priodax, a new and unique contrast medium for cholecystography. Since Priodax is not a phenolphthalein derivative, severe diarrhea following its use is rare, the incidence of nausea and vomiting being extremely low. Cholecystograms obtained with a "single dose" of Priodax are equal and even superior to those obtained with tetra-iodo-phenolphthalein "dyes."

Booth 17

HOLLAND-RANTOS COMPANY, INC.
New York—Chicago—Los Angeles

(1)—The universally known KOROMEX contraceptive specialties will be on display, including the new KOROMEX SET COMPLETE—a combination package ideally suited for either prescription or dispensing purposes.

(2)—The latest in non-allergic pillow cases and mattress covers will be shown along with a complete line of waterproof-protective garments and beddings.

(3)—Be sure to ask our representative about TINCTURE NYLMERATE, a patent germicide for preoperative skin treatment and first-aid prophylaxis.

(4) Samples of RANTEX masks, the ideal substitute for gauze masks—may be had for the asking.

Booth 18

MELLIN'S FOOD COMPANY
Boston, Massachusetts

An exchange of ideas relative to the feeding of infants and in regard to the nourishment for adults requiring a restricted diet are of much value in view of the importance of selecting food best adapted to the individual requirements.

The Indianapolis Meeting will afford an opportunity for such discussion with representatives of the Mellin's Food Company and members of the Association are cordially invited to call at Booth No. 18.

Booth 19

KELLOGG COMPANY
Battle Creek, Michigan

Kellogg's ready-to-eat cereals play a vital part in good nutrition because they are either made from whole grain or restored or enriched, as specified in the United States Basic Seven Food Rules.

Kellogg's Pep Whole Wheat Flakes is fortified with additional vitamins B_1 and D. One serving (1 ounce) furnishes one-fourth the daily requirement for adults for B_1 and sufficient vitamin D to meet all daily requirements for that vitamin.

Restored Corn Flakes and restored Rice Krispies may be included freely in wheat-free and low-residue diets.

The Kel-Bowl-Pac originally designed for troops on maneuvers is available in many sections in Kellogg's Variety Package. The package is the bowl.

Recent nutrition information and diet material are available at the Kellogg Booth.

Booth 20

CIBA PHARMACEUTICAL PRODUCTS, INC.
Summit, New Jersey

Physicians are cordially invited to visit the Ciba booth, where a trained representative will be on hand to answer any questions regarding the well-known line of Ciba's products.

Privine, the new nasal vasoconstrictor, will be featured. It has a potency equaled only by epinephrine, but this vasoconstrictor's effectiveness outlasts epinephrine by many times.

Booth 21

THE DICK X-RAY COMPANY
St. Louis, Mo. Indianapolis, Ind.

The Dick X-Ray Company will have a limited amount of equipment in our booth at this meeting due to the present regulations on the manufacture of medical apparatus. If possible, we will have a Cambridge Simpli-trol Electrocardiograph, with the possibility of several items of physio-therapy apparatus and x-ray accessories. We will, however, have our representatives present at this meeting and they will welcome the opportunity of discussing with you any problem that you may have regarding x-ray, physio-therapy or Electrocardiograph. So please visit our booth so that we can at least say "Hello" to you.

Booth 22

C. B. FLEET CO.
Lynchburg, Virginia

Phospho-Soda (Fleet), the buffered saline laxative, combines two U. S. P. salts of sodium phosphate in a stable concentrated solution of broader therapeutic range and is free from most of the disadvantages of saline laxatives.

May we remind you of:

Its ease of administration and milder aftereffects,
Its wide range of action, from gentle laxative to purge,
Its rapidity (action usually within the hour),
Its effectiveness in hepatic insufficiency,
Its amphoteric neutralizing quality,
Its stability, miscibility and economy.

Please note the descriptive leaflet on your professional sample.

Booth 23

NATIONAL LIVE STOCK AND MEAT BOARD
Chicago, Illinois

The National Live Stock and Meat Board will have a nutrition exhibit showing the importance of meat in the adequate diet. Nutrition literature, including the Nutrition Yardstick, will be displayed.

Booth 24

CARNATION COMPANY
Oconomowoc, Wisconsin

You are invited to visit the Carnation Company booth, No. 24, where you will find presented some interesting information on the various uses of Irradiated Carnation Milk for infant feeding, child feeding, and general diet purposes. Valuable literature will also be available for distribution.

Booth 25

J. E. HANGER, INC., OF INDIANA
Indianapolis, Indiana

J. E. Hanger, Incorporated, of Indiana, manufacturers of artificial limbs, cordially invites the physicians attending the convention to visit their exhibit in Booth No. 25.

In this exhibit will be displayed the latest improvements in design of the fine art of limb construction and fittings. Information concerning the artificial limbs will be available at the exhibit.

Our Indiana District Vice-President, Mr. J. G. Best, will be in charge of the exhibit.

Booth 26

SPENCER, INCORPORATED
New Haven, Connecticut

An interesting exhibit featuring Individually Designed Supports for abdomen, back and breasts. Spencer Supports are prescribed as an aid to treatment for the following: Hernia—Visceroptosis with Symptoms—Postoperative—Back Conditions—Maternity and Postpartum—Obesity—Movable Kidney—Breast Conditions and Certain Forms of Heart Disease. Samples on display.

Booth 27

THE BORDEN COMPANY
New York

Today, with more American babies to be fed than ever before, The Borden Company is resolved to use every available resource to maintain an unfailing supply of scientifically designed infant formula foods to provide the well balanced nutrition so essential in early life. These include Biolac, New Improved Dryco, Mull-Soy, Klim, Merrell-Soule Powdered Milks, and Borden's Irradiated Evaporated Milk. For complete information visit Booth No. 27.

Booth 28

THE MEDICAL PROTECTIVE COMPANY
Fort Wayne, Indiana

The Medical Protective Company is represented at Booth No. 28 where you are invited to call. Medical Protective Service is an institution of the Medical profession whose legal liability problems we have concentrated upon for forty-four years. Bring your professional liability questions and problems to Booth No. 28. Our representative is at your service to present our Protection plan, to explain the peculiar relation of the doctor to the law which governs your practice or to discuss any particular phase of Professional Liability in which you are especially interested.

Booth 29

WHITE LABORATORIES, INC.
Newark, New Jersey

Within recent years tremendous advances in vitamin research have added a wealth of clinical data to our knowledge of nutrition.

The intense interest of the laity, in the vitamins—often, unfortunately, confused and misled by unauthoritative lay advertising and uninformed "information"—can be properly controlled by the physician's interpretation of the actual usefulness of the vitamins to his patients.

In Booth No. 29 White Laboratories, Inc., presents its complete line of ethically promoted, clinically reputable vitamin preparations. Qualified representatives are in attendance to discuss with you the use of White's products in vitamin prophylaxis and therapy. Descriptive literature is available for your review, and a cordial welcome awaits you.

Booth 30

LEDERLE LABORATORIES
New York

A cordial invitation is extended to members and their guests to visit the Lederle exhibit at Booth No. 30. On display will be the more outstanding items of our complete biological line, our pharmaceutical specialties and allergenic products of merit. Highlighted will be the "Sulfa" drugs in their several forms—ampoules, tablets, ointments, spray, etc. Important immunizing biologicals will also receive attention.

Competent Lederle men will be in attendance to welcome you and discuss our products. We promise to make your visit well worth the time.

In charge will be Mr. N. L. Donelson and Mr. J. D. Cooney, Lederle representatives.

Booth 31

M & R DIETETIC LABORATORIES, INC.
Columbus, Ohio

M & R Dietetic Laboratories, Inc., Booth No. 31, will display Similac, a food for infants derived partially or entirely of breast milk; also powdered SofKurd. Representatives will appreciate the opportunity to discuss the merit and suggested application of these products.

Booth 32

S. H. CAMP AND COMPANY
Jackson, Michigan

S. H. Camp and Company, Jackson, Michigan, will exhibit a reproduction of the Camp Transparent Woman as the central theme of their display. The company's authorized dealers are equipped to serve patients for the various supports prescribed by physicians. The complete line of merchandise for prenatal, postnatal, visceroptosis, sacro-iliac, hernia and other specific conditions will be shown. Experts from the Camp staff will be in attendance to answer questions.

Booth 33

W. B. SAUNDERS COMPANY
Philadelphia, Pennsylvania

These publishers will exhibit their complete line of medical and surgical books, including such new and important books as Bockus' three-volume work on "Gastroenterology," McCombs' "Internal Medicine in General Practice," Shaar & Freuz' "External Fixation of Fractures," the new Mayo Clinic Volume, the complete series of the Military Medical and Surgical Manuals, Lundy's "Clinical Anesthesia," Wharton's "Gynecology and Female Urology," the Official U. S. Public Health Service Industrial Hygiene Manual, Stieglitz' "Geriatrics," Cutting's "Therapeutics," Dry's "Cardiology," Weiss & English's "Psychosomatic Medicine," Rehfuss' "Indigestion," the current series of the "Medical Clinics of North America" and the "Surgical Clinics of North America," the new Todd & Sanford's "Clinical Diagnosis by Laboratory Methods," the new McLester's "Nutrition and Diet," the new Wechsler's "Clinical Neurology," the new DeLee-Greenhill's "Obstetrics," and many others.

Booth 34

PICKER X-RAY CORPORATION
New York City

Visitors to the Picker X-Ray Corporation booth will have an opportunity of seeing the two U. S. Army Field Units, of which many thousands are already in operation close to the front lines.

In addition to the Mobile Field X-Ray Unit, there is a lightweight equipment intended for air transportation. This so-called "Air Corps Unit" is contained in three carrying cases, of which the total weight is less than four hundred pounds.

Both units will be on display, packed in their carrying cases, and assembled—ready for use.

In addition to these two Army Units, the Picker X-Ray Corporation will show a complete line of radiographic accessories.

Booth 35

ELI LILLY AND COMPANY
Indianapolis

The Lilly exhibit is presented as a mark of respect for the Indiana State Medical Association. Many Lilly products will be shown and attending Lilly medical service representatives will be pleased to aid physicians whenever possible.

Booth 36

SHARP & DOHME, INC.
Philadelphia, Pennsylvania

Sharp & Dohme will have their display at Booth No. 36, featuring "Lyovac" Normal Human Plasma, other "Lyovac" biologicals and biological specialties. There will also be on display a group of pharmaceutical specialties, such as "Sulfasuxidine" succinyl-sulfathiozole, "Delvinal" Sodium, "Propadrine" Hydrochloride products, "Rabellon," "Riona," "Depropanex," and "Prohexinol." Capable, well-informed representatives will be on hand to welcome all visitors and furnish information on Sharp & Dohme products.

Booth 37

PHILIP MORRIS & COMPANY, LTD., INC.
New York City

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

Booths 38 and 39

MEAD JOHNSON & COMPANY
Evansville, Indiana

"Servamus Fidem" means We Are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pablum, Oleum Percomorphum, and other infant diet materials. But not all physicians are aware of the many helpful services this progressive company offers physicians. A visit to Booth No. 38 and 39 will be time well spent.

Booth 40

PITMAN-MOORE COMPANY
Indianapolis

The Pitman-Moore exhibit (Booth No. 40) will be built around seasonable products, especially those for the prophylaxis and treatment of the common cold. Included will be outstanding items from the company's large line of biological products, liquids (with the emphasis on cough syrups and related items), ampules and tablets. Members of the Indiana sales and detail staff and personnel from the Indianapolis and Zionsville laboratories will be in attendance.

Booth 41

JOHN WYETH & BROTHER, INC.
Philadelphia

You are cordially invited to visit Booth No. 41, where John Wyeth and Brother, Incorporated, will exhibit its line of pharmaceutical specialties including Phosphaljel, and the Wyeth Drip Apparatus for the treatment of Peptic Ulcer, Wyeth's Alulotion Sulfathiazole, 5 per cent.

Booth 42

AKRON SURGICAL HOUSE, INC.
Indianapolis

The Akron Surgical House, Inc., will occupy Booth No. 42 in the Commercial Exhibit at the annual convention of the Indiana State Medical Association, at Indianapolis, in September. A complete line of surgical instruments and pharmaceuticals will be displayed. The exhibit will be in charge of Homer E. Tate.

Booth 43

S. M. A. CORPORATION
Chicago, Illinois

The exhibits of the convention contain a display by S.M.A. Corporation, giving information on infant feeding and scientific vitamin products. CARITOL SMACO, a new stabilized vitamin A preparation, and Elixir RIBRANEX SMACO, a delicious tasting B-complex product, will be presented. Literature especially designed for the busy practitioner is available.

Booth 44

THE DOHO CHEMICAL CORPORATION
New York—Montreal—London

ANIMATED PATHOLOGICAL EAR EXHIBIT

The Auralgan Exhibit consists of a model of the human auricle four feet high together with a series of twenty-four

three-dimensional ear drums, modelled under the supervision of outstanding otologists. Each of these drums depict a different pathologic condition based upon actual case observation and prepared, in so far as possible, with strict scientific accuracy so as to be highly instructive and interesting to all physicians.

Booth 45

GRADWOHL SCHOOL OF LABORATORY AND X-RAY TECHNIQUE
St. Louis, Missouri

This organization will have a commercial exhibit showing graphically the manner of action of Rh factor.

There will also be shown laboratory products and a special publication called "The Laboratory Digest."

Booth No. 46

DePUY MANUFACTURING COMPANY
Warsaw, Indiana

"DePuy will exhibit Fracture Appliances, which have been prescribed by the U. S. Army and Navy for bone use. We shall be glad to display these products for the benefit of the members of the profession who are in the service and out of the service. Constructive criticisms will be appreciated. All Surgeons are invited to booth No. 46 at the Indiana State Medical Meeting. You will not be encouraged to buy because we have difficulty in securing materials from the sources. All we want to do is to act as a consultant and use the booth for discussions. We will have trained men there to answer any of your questions. It will be our pleasure to be with you at this meeting."

Booth 47

H. J. HEINZ COMPANY
Pittsburgh, Pennsylvania

All physicians practicing pediatrics or prescribing soft diets should see the Heinz display featuring Strained and Junior Foods.

Be sure to register for the eleventh edition of the Nutritional Chart, as well as our new Special Dietary Foods booklet and Baby's Diary and Calendar.

Booth 48

AMERICAN HOSPITAL SUPPLY CORPORATION
Chicago, Illinois

Vitomacs, the exclusive vitamin formula designed to supplement dietary standards of hospitals . . . Biodyne, the new burn ointment which is receiving so much favorable clinical comment . . . Derma-Fresh, the body rub which uses no critical materials, yet is an improvement over ordinary alcohol . . . Baxter Intravenous Solutions and Blood, Plasma and Serum equipment—these and other products of equal interest will be exhibited and discussed in detail at the American Hospital Supply Corporation booth.

Booth 49

ORTHO PRODUCTS
Linden, New Jersey

The Ortho Products exhibit features the Scientific background of Ortho-Gynol, Ortho-Creme and Ortho Diaphragm. Reprints of published reports of recent clinical studies on the effectiveness of various methods are available. Representatives in charge of the exhibit are E. O. Glick, Mid-Western Divisional Manager, and Charles Smith, Indiana Representative.

ABSTRACT: FIND SULFADIAZINE CONTROLLED AN EPIDEMIC OF SCARLET FEVER

Sulfadiazine in prophylactic doses of 1 gm. daily effectively controlled an epidemic of scarlet fever at a United States naval station and caused a pronounced reduction in the number of daily sick calls due to other respiratory complaints, Lieutenant Robert F. Watson (MC), U.S.N.R.; Lieutenant Commander Francis F. Schwentker (MC), U.S.N.R.; Commander J. E. Fethersston (MC) U.S.N., Ret., and Sidney Rothbard, M.D., New York, report in *The Journal of the American Medical Association* for July 10.

"Infectious diseases often appear in epidemic proportions under wartime conditions when it becomes necessary to gather large bodies of troops into crowded quarters," the four physicians explain. "Such conditions are particularly favorable to the spread of the air-borne infectious diseases of the respiratory tract. While experimental work with aerosols apparently offers promising prospects for controlling droplet infections, effective technics have not yet been perfected for employing these substances on a large scale. Several recent reports have appeared, on the other hand, showing that small doses of sulfanilamide, given over prolonged periods, will prevent rheumatic subjects from having hemolytic streptococcus infections of the respiratory tract and thereby save them from recurrences of rheumatic fever." Scarlet fever is caused by specific strains of hemolytic streptococci.

The authors say that the first case of scarlet fever to appear at the naval station where their study was made was on September 28, 1942. During the following month only a few additional cases were reported, the number being about equally distributed between the radio school and the regular personnel. During the first two weeks in November, however, the incidence of scarlet fever increased sharply in both groups and by November 20 the number of cases in the radio school had reached a level of 10 a week, with a slightly higher incidence among the regular personnel. On November 20, as a prophylactic measure, the entire personnel of the radio school was started on 0.5 gm. of sulfadiazine twice a day. The drug was given at 8 a. m. and 4 p. m. and was continued for a period of thirty-two days, through December 22.

"The results were striking," the four physicians declare. "During the first week after sulfadiazine was started the incidence dropped to 4 cases a week, during the next three weeks only 5 new cases of scarlet fever appeared among this group.

"For three weeks after sulfadiazine was begun in the radio school, the incidence of scarlet fever among the personnel, on the other hand, remained high. For this reason the regular personnel was started, December 11, on prophylactic doses of sulfadiazine 1 gm. daily, given at 8 o'clock each morning, because it was not possible to divide the daily dose as was being done at the radio school. The drug was continued for twelve days through December 22. . . ."

The drop in number of cases was even greater than among the radio school personnel.

"This study," the authors say, "indicates that sulfadiazine in doses of 1 gm. daily can effectively control an outbreak of scarlet fever. The conditions prevailing at the station were such that the entire personnel could be divided into two groups, one of which served as a control for the other during the period of prophylaxis. . . .

"There can be little question that sulfadiazine in small doses was effective in controlling the epidemic in both groups. The radio school personnel was started on treatment first, with a resulting sharp decrease in case rate, while simultaneously the incidence among the regular personnel remained high for the next three weeks. . . ."

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SEPTEMBER, 1943

HI, SAILOR!

September 28, 29 and 30 will go down in Indiana medical history as the dates of an outstanding "war meeting," sans many of the frills that usually are a part of our annual gatherings. Save for the "get-together" smoker Tuesday evening, the meeting will reflect the wartime attitude of Hoosier Medicine.

Headquarters will be at the Claypool Hotel, where registrations are made and where the exhibits will be found. All scientific meetings will be held there, as well as the meetings of the Council and the House of Delegates.

Medical meetings such as this have the "go-sign" from official Washington, it being recognized that the medical progress must not be interrupted.

This year the entire session will have a Navy flavor; we have had Army sessions, now we honor the United States Navy. Our outstanding guest will be Doctor Ross McIntyre, Surgeon General of the United States Navy. The meeting will officially be known as a Ninth Naval District Meeting, and already we have assurance that Admiral John Downes and many of his staff will come from the Great Lakes area.

It also is probable that many of our members now in the armed services will find it possible to drop in for one or two of the meetings, thus adding additional zest and color to the occasion. Entertainment, as such, will be of the limited variety, that we may give our every effort to making this a purely scientific wartime assembly.

We urge your attendance if at all possible. True it is that you are inordinately busy and that the element of time is a most important one in your daily routine; yet even one day away from your work will be most profitable to you, will give you a brief respite from your increased activities and will enable you to meet a few of the "Johns and Bills" you were wont to pal up with at the meetings of former years.

It will do you good, as the Hoosier saying goes, and, more than that, it will send you back to your job with new vigor—all the better prepared for the hard work ahead. Make your plans now to be with us for this occasion and help make this convention one of the best in a long list of notable medical gatherings in your native state. COME!

ARTHUR T. McCORMACK

In the death of Arthur T. McCormack, M.D., of Louisville, organized medicine lost an ardent and indefatigable worker. During most of his professional life he had engaged in medical society activities as well as in matters pertaining to public health. At the time of his death he was serving as secretary of the Kentucky State Medical Society, as editor of its official journal, and as secretary of the Kentucky State Board of Health.

Much of Doctor McCormack's time was occupied in traveling over the country, attending medical meetings and conferences. He was a "front row" man at all such occasions; seldom did one see McCormack sitting in the rear of a meeting room. He was a great "seconder" — he liked to second motions — made a lot of them too. His jovial disposition lent much to the meetings he attended.

His best work probably was that in connection with the Kentucky State Board of Health. He took over at a time when health matters in certain mountainous areas of his native state were not of the best, and it was in these sections that he brought about many changes. We liked to quiz him about that phase of his work; just what conditions were, and just how he went about remedying them.

He was a good organizer and, once having effected an organization, he knew exactly how to keep it closely knit. This, no doubt, was an inheritance, since his father, Dr. J. N. McCormack, spent most of the latter years of his life in medical organization work. Some three or four decades ago his father was named "an ambassador of good will" by the American Medical Association. His job was to go out in the highways and the by-ways, especially the latter, there to preach the gospel of medical organization. We recall two such visits to our local society, the first when the membership was about two score. It seemed odd to us that a man would make a special visit to such a small group just to talk about the value of the county medical society, yet that was the work of this good man and he did it well. It was natural, therefore, that his son, Arthur, imbued by the good works of

his father, should carry on, although in a somewhat different tempo and amid far different conditions.

We join with our sister state in mourning the passing of one of her most illustrious citizens, and with the Kentucky State Medical Society in the loss of an outstanding member. Thousands of medical men throughout the country will also join with us, for few physicians had a wider acquaintance throughout the nation than Arthur McCormack.

Another name has been added to the long list of notable physicians, men of the "do it" type.

WAGNER-MURRAY-DINGELL BILL

"When the cat's away, the mice will play," so runs an old adage, which might be thus paraphrased: when fifty thousand doctors are away from their homes and medical practice, certain groups will endeavor to "put over" some of their nefarious plans. So it is with what generally is known as the Murray-Wagner Health Bill. With almost half the medical profession engaged in war activities, most of them away from their homes, this would seem to be a poor time to take such undue advantage.

Every physician should familiarize himself with the contents of this proposed legislation and, having done that, should immediately contact his representative and senator in the matter. Just now there is a congressional vacation and most members of that body are at their homes, thus enabling us to make a personal contact.

There are so many objectionable features in this bill that it would require most of our editorial pages to properly discuss them, but some of the outstanding proposals are of such a nature as to call for open revolt on the part of the medical profession.

We do not want a dictatorship in medicine any more than we want such a thing for our nation, yet this is just what the bill proposes—to set at the head of the entire machinery the Surgeon General of the United States Public Health Service. Our criticism of this is not based on an objection to any individual physician who might head this important part of our national government, it is based on the principle that we do not want the practice of medicine regimented.

We are advised that the American Federation of Labor has endorsed the bill and that other groups are highly favorable to it. These groups certainly have not carefully studied the far-reaching effects of such legislation. Three billion dollars is a lot of money, so we are told, and our understanding is that this is the sum to be raised through a system of pay roll deductions. We dare say that the payrollee, while he might "fall" for a Utopian plan of "free this and free that," does not fully understand that he will have to pay the freight.

If there ever was a time when one should "talk turkey" to his congressional representatives, that time is *right now*. So get busy. *You tell 'em!*

THE PLAIN FACTS IN THE CASE

The Indiana State Medical Association in no wise plans to be the "bellwether" in the matter of postwar medical planning. We do not claim to have supernatural powers in the divining of the things that lie before us. Our sole interest is in so planning that we always are looking ahead for the things that seem certain to come.

In this instance we are thinking of medical leadership during the next several years. It is our frank opinion that this leadership has long since gotten into a rut—a deep one at that—and that it will require a long, steady pull to get ourselves out of that rut. And get out we must, if we are to go ahead.

The July number of THE JOURNAL carried an editorial on Public Relations, written by a man who knows his subject. In that editorial were concrete suggestions and advice that might well be heeded. That there is a demand for action is evidenced by the numerous resolutions, et cetera, that came before the recent session of the House of Delegates of the American Medical Association, and it should be recalled that these came not from a single section of the country, but from all over the country.

Efforts, some of them successful, were made to kill many such resolutions; some were altered, some were all but emasculated, yet out of it all came some almost revolutionary changes in our former procedures. At last we have a special committee whose chief job it is to *sell* the medical profession to the public. We are advised that this committee has held meetings of an "organization" character, that is, to see what it is all about and to plan definite action. It is a stupendous job, as we view it, and one that will require a long period of time before tangible results are had.

And not only have state organizations demanded that something be done to get us out of the rut previously mentioned; several county medical societies, the very "grass roots" of organized medicine, have been thinking and doing. In the House of Delegates of the Indiana State Medical Association, at our coming meeting, there will be introduced a resolution calling upon our officials for immediate action, action of a constructive sort.

This resolution is not the result of a hasty consideration; rather it is the result of a long-time study of medical conditions by men in actual practice, some of them in rural communities.

It is felt by these men that no longer can someone be "hired" to do the work that should be done by medical organizations. It is, of course, well to hire someone to do certain work of a full-time nature, but to turn over, in its entirety, such matters to an outside organization is not to the liking of a large group of medical organization members. If American Medicine has a job to do — and that job even now looms directly before us — American Medicine must roll up its sleeves and do that job. The newly organized committee has that task

ahead of it; it is they who must do the groundwork, the planning; it is they who must see that the proper machinery is set in motion and that this machinery clicks.

Too long have we sat supinely, basking in the assurance of the "powers that be" that all is taken care of; that, while we do not have an official agency in the National Capital, all is being taken care of, and that in the end Medicine will come out victorious.

Well, the facts are, Medicine just hasn't done that; on the other hand, Medicine has taken some darn good lickings—and will take more if we do not awaken and do something about it. So, as we say, this new committee has a job and it remains to be seen how they will approach that job and what they will do with it.

With the efficient organization that prevails in the vast majority of our state organizations, plenty of help is available for this committee. Very commonly state and county medical organizations are in a position to give wholesome advice about medical problems, and it is to be hoped that this new committee will ask for plenty of advice and, having gotten it, use some of it.

We talk about being at the "cross roads"; we prate about "the future of Medicine"; we write about a lot of similar things, but we really do little about it. It is our opinion that right now a lot less chatter and a lot more action is the thing needed. We have slipped off piece after piece of our armor until we are now vulnerable, and those points of vulnerability are too prominent to escape the notice of those who would attack us.

Let's get away from that smug, it-just-can't-happen-here attitude; let's view the matter as it now stands — then, let's get at the job. We have made a start in the right direction, but a *start* it remains; the finish is a long way in the future and only by a tightening up of our armor *and setting forth as a body* can we expect good results. It can be done; the rank and file of the medical profession demands that it be done — *we will do it!*

FOR LIST OF

INSTRUCTIONAL COURSES

OFFERED AT THE

ANNUAL MEETING OF THE

INDIANA STATE MEDICAL ASSOCIATION

(See Page 466)

POSTWAR BATTLES

Life for the individual, as well as for the nation, consists of an ever-continuing struggle. Even unto death, equally for both, life is a never-ending battle.

Today the very flower of America's manhood and womanhood, tense and nerve-taut, fights gloriously and valiantly in forty-five extraterritorial locations in global warfare to preserve that which we call "The American Way" of life and living. The battles are on land, upon and under the sea, and in the air. The problems are those of production, logistics, and the annihilation of the enemy. The weapons are those of destruction and extinction.

Tomorrow we must fight the Battle of Peace. The problems will be those of restoration. The weapons must be constructive.

If it is true that "in time of peace prepare for war," then it follows as equally sound advice, "in time of war prepare for peace."

As we all now recognize, steeped in the highest traditions of a real democracy, we in America were caught woefully unprepared for world-wide warfare when the bombs and explosions of this global catastrophe burst seemingly unexpectedly upon us. Hence, it behooves us to be more forehanded in the Battle of Peace to follow, for inevitably in X years this holocaust will end. Then what?

The Battle of Peace unquestionably will consist of many separate battles, some large, some small—all important toward but one end, that of the security and the happiness of all mankind. There will be the Battle of International Law and and Order; the Battle of International Trade, both export and import; the Battle of Finance; the Battle of Taxes; the Battle of Industrial Production; the Battle of Farming, and many others of equal import, just to mention a few. And we, the common ordinary folks, should and will be most intensely interested in still other Battles, the Battle against Want, the Battle against Idleness, the Battle against Ignorance, the Battle against Squalor, and the Battle against Disease. In the Battle against Want we must fight with the weapons of a rationalized domestic economy closely coupled with a sound wage policy; In the Battle against Idleness we must fight with the weapons of industrial and agricultural employment, fully integrated and tunefully harmonized, not class against class; in the Battle against Ignorance we must fight with the weapon of an ever-extending, aggressive and progressive educational program for all; in the Battle against Squalor we must fight with the weapons of improved housing and better recreation facilities; in the Battle against Disease we must fight with the weapons of better sanitation, better prophylactic and immunity programs, better control of communicable diseases, better and broader medical education both in graduate and postgraduate schools, better and still better application of a more and still more intense endeavor in the field of clinical research, and hence a more rounded and still more rounded service in general

medicine, surgery, and the specialties, toward the end that competent medical care may be made available to all at a cost which each can afford to pay, each according to his capacity. Come this must. Come it will!

He who does not so believe, simply just does not know. His ignorance thereof and his lack of interest therein is simple and sublime. He never has been in battle, profession-wise. He could not hear a cannon roar or see a bomb flash or even feel the earth tremble beneath him. He's immobile. Perhaps moribund!

As doctors, as medical practitioners, we are most vitally interested, indeed, in this Battle against Disease. Who is going to plan the battle and map the strategy? Who is going to give the commands? Who is going to take orders? It is for us, as doctors, to say or to remain silent! If we perfect our organized efforts, if we remain united, if we take the lead, then we can dominate the situation. If not, others will tell us when, where, and how. And those others will be politicians. Bureaucrats!

Idle speculation? No!

Nine years ago, to be exact, in the September 1934, issue of THE JOURNAL appeared an editorial in these columns, entitled "Guinea-Pig-O-Mania." A few short paragraphs are quoted:

> ". . . . Beware America! Beware lest, having bought and paid for those very same shirts now being worn by jittery European nationals, through soft-hearted debt-forgiveness and debt non-collections, through benevolent battleship-sinking conferences, and through day-dreaming, trade-losing, illusionary concessions and treaties, beware lest we guinea-pigs Americanae be not likewise regimented in double files and columns of four and squads of eight without any shirts at all.
>
> ". . . . The legislative mind, quite often egoistically intent on self-perpetuation, frequently knows but little and cares still less about scientific medicine, because fiat-government concerns itself largely with hurrah nostrums and vote-getting panaceas. The merely gold-washed chains of ward-heeler serfdom await the medical profession if organized medicine slumbers.
>
> ". . . . The political sap is rising with inevitable and undeniable surge in the now naked legislative trees. Before our very eyes the job-seeking aspirants are budding and bursting forth with the camouflaging foliage of their secret ambitions and their closely-buttoned desires. . . . . Smooth-tongued and honey-voiced are their pre-election promises, yet often scatter-brained are their ideas. . . . Many times do we realize only too late that the platform plank used so blithely to bridge the pathway into office has been cast equally gleefully into the consuming fire of the post-election celebration."

Prophetic or not? If you think not, then you just do not sense and are not alert to the present trends in medical practice.

Read the words of Brigadier-General Fred W. Rankin, M.C., immediate past-president of the American Medical Association, before the House of Delegates, June 7, 1943. Somewhat belatedly and with the enemy concealed within his Trojan horse outside our gates, he said:

> ". . . . It must now be apparent, even to those who have been most purblindly recalcitrant, that mighty influences are at work to effect epochal changes in the complexion of medical practice. . . . . That they can no longer be ignored seems difficult to controvert . . . . That our medical descendants should look back and point a culpable finger to our page of history which would read that our actions were 'too little and too late' is a plaguing thought."

Do you still disbelieve? Then study the Wagner-Murray Senate Bill No. 1161, now before Congress. It makes provision for free general medical, special medical, laboratory and hospital benefits for more than one hundred million people in the United States. It proposes placing in the hands of one man, the Surgeon General of the Public Health Service, the power and authority:

(a) To hire doctors;

(b) To establish fee schedules;

(c) To establish qualifications of specialists;

(d) To determine the number of patients for whom any physician may provide service;

(e) To determine what hospitals or clinics may provide service for patients;

(f) When funds are available, to assume the cost of operating medical colleges and to subsidize medical students to the extent of $700 each, per year, for four years; and

(g) To spend vast sums in medical research.

Now, do you still doubt the prophesy of nine years ago?

Beware America! Beware every thinking citizen! The public weal is at stake in this postwar Battle against Disease. American Medicine, administered in The American Way, has given a medical service which can not now and never was and never will be duplicated in any foreign land at any price.

Why? Why? Why is America so weak-kneed and mentally decrepit that we must ape and adopt foreign-bred philosophies and ideologies as our very own? Is it because we envy them their pomp and ceremony? America boasts no kneeling heritage. Do we covet their mediaeval and modern ruins? America has plenty of sore spots. Certainly we can not be jealous of their prosperity; they are all bankrupt. Yet some among us would have us partake of their poverty and share in their squalor. Why? Why? Why?

Beware American doctors, each one of you individually! What price a mess of pottage? Yours is the choice. Think—Act—Now!

Editorial Notes

Due to changes in postal regulations, you will save much time if you will address your Association mail to "Indianapolis 4," the figure representing a mail delivery area, a new plan having recently been adopted for the larger cities of the country. Just remember that figure, "4," and attach it to all mail addressed to headquarters, please.

Last call for reservations for the Indianapolis convention! As we have advised on several occasions, hotel accommodations are "not what they used to be," so it would be well to make a belated reservation right now. Never in our memory have travel accommodations of every sort been so hard to get as at present, whether it be a room at a hotel or a train reservation, hence the provident physician who has his reservation well in hand is indeed most fortunate.

Speaking of train travel, one finds that many of the deluxe accommodations of yesteryear are now not to be had. Few are the lounge cars, as we knew them some months ago, while Pullman parlor cars are indeed quite uncommon. Some of the major lines have parlor cars of their own, their time tables stating, for example, "N. Y. C. parlor cars." Most of these deluxe cars of former days have now been converted into "tier cars," to be used for the transportation of troops; the bunks therein being arranged in tiers of three. The load capacity of these converted cars ranges from forty-two to forty-eight persons.

The Indiana State Board of Health again most properly directs the attention of Hoosier folk to matters of diet—good food *vs* bad food being the theme of several articles in a recent number of their Bulletin. Secretary Thurman Rice talks about the things that go to make "bad" food. He properly enumerates the various elements that make for food being unfit for human consumption. There, of course, is ever-present the danger of botulism; too many housewives are using the "cold pack" method of canning non-acid fruits and vegetables, and likewise too many are forgetful of the fact that many of these preserved foods need a lot of cooking before using. The medical profession needs to be well on the alert in the next few months, since it is more than probable that gastric complaints, as well as the more serious variety, will be on the increase once our Indiana folk begin opening cans and jars.

Another of the drugless practitioners, this time a physiotherapy operator, C. B. Hancock, of Lafayette, has lost his Indiana license after a hearing of charges brought before the Indiana State Board of Medical Registration and Examination by the Indianapolis Better Business Bureau. This man was charged with having represented himself as a medical doctor and with having administered drugs of various sorts, dispensing of pills, et cetera. It may be, although we often doubt it, that some day these licensed "drugless" folk will learn that this word, "drugless" means just that.

Word continues to filter through from Washington to the effect that more and more medical officers soon will be needed for the armed forces. One statement is rather directly made, that all physicians under forty-five would do well to consider immediate enlistment. The Indiana Procurement Committee has as yet made no formal request for additional enlistments, although it is more or less a matter of course that such calls will be made. While Indiana has an enviable position in the matter of such enlistments, being well ahead of their quotas in every call, there are some physicians who come under this age group and we strongly advise that they at least "talk it over" with the Procurement Committee.

Food handlers, as required by Indiana law, are being carefully checked in many of our larger centers of population, and special attention is being given to the "patch test" for suspected tuberculosis. It is reported that in the South Bend area some eight thousand food handlers have submitted to this test since last February, and that fifteen active cases were detected. Several years ago, in the same area and covering the same number of food handlers, four hundred cases of syphilis were located, some of whom did not know that they had been infected with this disease. It is a long, hard pull, this matter of elimination of sources of danger from our food handlers, but it pays mighty big dividends in the end.

A chap we know, who resigned a teaching job to take on one having to do with war transportation—now having charge of troop trains throughout the western area, advises that the "eats" on these troop trains are "tops"; says that the mess sergeants vie with one another in providing the best of food for the traveling service men; that the service is all that could be desired, and that he, personally, put on about five pounds the first two weeks he was on the job. We at home do too much complaining about shortages, about the rationing of this or that; we just do not remember that several millions of our boys, all over the world, are being housed and fed by Uncle Sam, to say nothing of the millions we are caring for under the lend-lease plan.

Well, the Victory Gardens are beginning to pay off; already we have our pressure cooker and cold packer in operation. It brings into the home a bushel of this and a bushel of that, every few days, with a lot more to come later in the season. Our pole beans, both the Limas and the Kentucky Wonders, are climbing all over the neighborhood and promise huge crops later in the season. Through a local residence of several decades, we never before have seen such canning and preserving activity as is now going on all over the city. It would be interesting to know just how many packages of home-canned foods will be in the home storerooms of the nation, come next November.

Restaurant operators are having their troubles these days, not only are they beset by "point" problems, but they have additional troubles. The help problem is a most serious one, what with the big pay checks the employees of industry talk about in these times. Then, too, they are unable to buy all the necessary equipment commonly demanded by health authorities. Furthermore, they have to be on a constant lookout as to the source of their food supplies. You may pass it off ever so lightly, but the fact remains that there still is a "Black Market," a potential danger to our food supply that cannot be ignored. Never before in our memory has it been so important that one "know his market man" as at the present time. The market owner who is "on the up-and-up" will often tell you that certain items are not available; not so, however, with the chiseler. He seems always to have a plentiful supply, regardless of its source. Advise your patients of these things; it may mean the difference between life and death.

It does beat all how folks down in Washington can think up things to perplex the minds of professional men; first, it is the tax program, with its kaleidoscopic changes, then something else. Now comes official word that on or before September 15, just fifteen days after you receive your JOURNAL, we must sit us down and make an estimate of our income for the year 1943. Will Smith, Federal Collector for the Indiana area, had an article in the August number of THE JOURNAL which seeks to explain just what this means and just how to do it. However, to most medical men this is not a very clear exposition; in fact, several with whom we have talked seemed to be quite befuddled over the matter. A few of our local societies are fortunate in having a setup whereby such questions are handled by experts, lawyers, tax authorities, et cetera, but most groups do not have such a service. The fact remains, however, that on or before September 15 we have an added task before us, one that can not be detoured, hence, we will have to make out the best we can. *Remember that date and get that report in!*

The Indianapolis Better Business Bureau warns the medical profession to be on the lookout for visits from agents of *Labor Digest*, and one Norman Zolezzi or his agents, who seek advertising in that magazine. The Bureau states that this is a private operation of Zolezzi and that the man has no standing with either the A. F. of L. or the C. I. O. In the first place, "good" doctors do not advertise, but a few are so greatly impressed with the sales talk that they pay for a space which carries the legend, "from a friend." If you are approached by one of these agents, just dismiss him, pronto.

Considerable fear was expressed early last spring lest the Indiana corn crop would be a failure, due to the heavy rains at that time, plus the prospect of the greatest labor shortage in the history of the state. However, Dame Nature came to the rescue and removed the first of the fears. Although planting time was much delayed, rains and plenty of sunshine have taken care of that. Hybrid corn, much of the seed of which is grown in northern Indiana, demands special care. The detasseling period, spread over a period of a few weeks, requires additional labor, which it was feared could not be had, but the county agent leader at Purdue University got busy and devised a plan that has worked out most successfully—that of enlisting the services of boys and girls for this work. They moved from section to section as the need for their services developed, did a good job of it, and now we can rest assured that if the katydids do not sing too early the Hoosier corn crop will be a bumper and of most excellent quality.

Comes now another worry to hospital authorities as well as hospital staffs, that of interns. In these modern days interns have become an absolute necessity to all hospitals, but the securing of this needed help is now quite a problem. We were advised not long ago that medical graduates would be expected to take an internship, either in a service hospital or in an intern-approved hospital. Now it seems that there is something brewing. We are told that these young graduates are more than canny about answering inquiries from hospitals about possible internships therein—they seem not to know what is in the offing. This is a matter that needs immediate clarifying; the Procurement and Assignment Service, which for a long time had this matter in their hands, should make a definite pronouncement in the matter. In some of our hospitals, due to an intern shortage, it has been found necessary to have staff members take turns at night in order that proper service could be rendered the patients therein. Such a situation should not exist; an equable distribution of recent graduates would, we believe, solve the problem, and we trust that this may be brought about at an early date.

Again Indiana finds herself possessed of a tomato crop of record-breaking proportions, and again it becomes necessary to do something about the help problem. Press reports indicate that, as in 1942, women from the various packing center neighborhoods will solve the problem, several thousand of them enlisting for the "tomato campaign." Despite the corn borer and the ear worm, it now appears that the Hoosier sweet corn crop also will be above normal, so it is likely that Hoosier women will again be called to care for this abundance. Home canning, and there is plenty of it, will do much to help the situation, but we still must commercially can and preserve tons and tons of Hoosier-grown foodstuffs.

The varied vacation experiences of Hoosier medics would make an interesting story, indeed, were it possible to gather these tales together. Many physicians did not take a "regular" vacation, for one reason or another; the press of duties probably is the main reason, and another reason being travel conditions. Most medical men heeded the suggestion of coördinator Eastman and refrained from making train reservations to distant points. However, many found time and found a place, within the confines of our own state. And, be it remembered, Indiana is no mean vacation state. With our natural waters, together with the several artificial lakes that have been created by our Conservation Commission, Indiana affords plenty of occasion to be known as "vacation land." We do admit, however, missing our favorite haunts up Canadian-way. Right now we are thinking of a secluded spot, some forty miles from any road and fifty-five miles from the nearest fishing camp. Here life was veritably primitive; aside from the limited number of guests in the camp and the camp "help," the only other human beings thereabout were the Indians, and they ranged from youngsters of a few days old to Jack Pot, the Big Chief of the outfit, said to be ninety years old and still going strong. It was here that we practised medicine, without let, license or permit, thereby arousing the indignation of the efficient Ruth Kirk, who presides over the destinies of the Indiana State Board of Medical Registration and Examination, and who threatened dire results as a consequence thereof.

Oh well, there may be another day, a day when we can all go where we wish, there to "vacate" to our heart's content.

ARMED FORCES MUST HAVE SIX THOUSAND MORE PHYSICIANS BY JANUARY 1

The armed forces must have six thousand additional physicians by January 1, 1944, *The Journal of the American Medical Association* reports in an editorial in its August 7 issue. *The Journal* says:

"At a conference of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, held on July 31, with the War Participation Committee of the American Medical Association and in the presence of Mr. Paul V. McNutt, chairman of the War Manpower Commission and representatives of the Army and Navy medical departments and the Public Health Service, it became apparent that the medical profession must produce toward the winning of the war an additional six thousand physicians for the armed forces before January 1, 1944. Pursuant to a realization of this objective a directive has gone to the generals in command of the various service commands authorizing them to induct into the service physicians between the ages of thirty-eight and forty-five who have been declared available by the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians and who are otherwise subject to Selective Service.

"The needs of the armed forces are real. The members of the War Participation Committee raised with the representatives of the various governmental agencies all the questions that have from time to time challenged the need; the challenge seems to have been met effectively. Indeed, the intimation was made clear that the needs of the armed forces will be met by specific regulations of the Selective Service Administration or the enactment of necessary legislation if required. All physicians up to forty-five years of age who have been indicated as available have therefore placed on them now the responsibility for an immediate decision as to their enlistment with the armed forces. The need is so positive that questions of essentiality of men in positions of teaching and research and in industrial medicine are likely to be rigidly reviewed in the near future with a view to extracting from civilian life every one that can be spared.

"As the war continues and intensifies, new needs for the services of the medical profession become apparent. An army in motion and one engaged in the kind of aggressive combat that now concerns our armed forces needs physicians in even greater numbers than have heretofore been demanded. Many thousands of interned aliens and prisoners are now the burden of the United States and must be given medical care.

"If there is any physician who still hesitates under these circumstances, he should realize the added advantage to him of accepting now the commission that is proffered. Should it become necessary in the near future, as seems quite likely, to enlist new activity by the Selective Service Administration and the Officers' Procurement Service to bring in the six thousand physicians that are so certainly required, those recruited by that technic will inevitably begin their service with the minimum commission that is offered, namely that of first lieutenant. Until that technic is installed, the men of special competence and of years beyond those of the recent graduate have the assurance of careful consideration and a commission more nearly in accord with age and experience.

"The call here made has the approval of the Directing Board of the Procurement and Assignment Service and of the War Participation Committee of the American Medical Association. The medical profession may well be proud of the fact that it has been the only group given, by directive of the President, the responsibility of maintaining service in civilian life and at the same time supplying the needs of the armed forces. Let us not fail in meeting fully the trust that has been placed upon us.

"PROCUREMENT AND ASSIGNMENT SERVICE,
1778 Pennsylvania Ave., N.W.
Washington 25, D.C."

President's Page

A Short Time Out

This year I wandered into the Arrowhead country of northern Minnesota for a short rest at the Northern Lights Lodge, located on Kabetogama Lake—of course by train and not by auto! This spot has no telephone or telegraph service; it has only rural mail delivery, and a Duluth paper can be obtained a day late. There is a radio in the manager's lodge which keeps one informed of the daily events.

The word Kabetogama is an Indian word meaning "rough water." This was well demonstrated for two days while I was there. The lake was so rough one Sunday that many of those who were fishing were unable to return to their lodges and were compelled to spend the night on various islands in the lake, but all were returned safely the next day. The Chippewa Indians at one time occupied this region. Among the first white settlers were a Mrs. McCaw and party who used the Gold Portage Route to get into Kabetogama Lake from Rainy Lake.

Kabetogama Lake contains many islands, and some of the names are quite interesting. There is Potato Island, noted for its fine potatoes and settled by a man named Teasck; Funeral Island was an Indian burying ground. Another Indian burying ground is on a point of land between Kabetogama Lake and Namakan Lake, and this is the site of one of the oldest Indian villages in this region, where the Indian mounds are still visible.

Martin Island had a fine saloon built on it in the early lumbering days and it was quite a notorious spot. The building now is dilapidated and in ruins. Jug Island was once an important place, for it was used as a base by moonshine runners.

There are many points and bays about which there are interesting stories. One of these is Nashata Point, where in 1817 the Indians left an Indian squaw to die. She was found by some fishermen and lived to be one hundred twenty-five years of age, and died in 1932.

Lost Bay has been so named because many people who are on the lake get into this bay and think that they are in the main channel of the lake, but who eventually find themselves running into the dead end of the bay.

Gappa's Landing has the following story connected with it: Two men, George Gappa and H. Peterson, lassoed a big cow moose, the moose towing them to shore where they were forced to disembark from their canoe. Two weeks later these same two men saw the cow moose towing her small calf across the lake in the canoe.

In Sullivan Bay a walking boss of the Sullivan Lumber Company and his team disappeared through the ice in 1908.

There are many other interesting facts about the lake, but I must take time to tell of the big log boom which I saw on a two-day trip to Kettle Falls. Our guide estimated that there were two million five hundred thousand feet of lumber being towed toward Kettle Falls, where the logs went through a flume into Rainy Lake and were then reassembled and towed through Rainy Lake to a lumber company at International Falls, the total distance the logs traveled being about two hundred and fifty miles. There were only four men in the crew handling this boom. They carried a steam-operated boat, not unlike a tug boat, which they called a "gator," and a bunk and food boat which was called a "Wanegean." The logs had to pass through a narrows, named Squaw Narrows. We were held up for an hour and a half at this point, but we profited in two ways: we caught some fish and watched the crew manipulate the logs through the narrows, which was a very interesting and instructive observation.

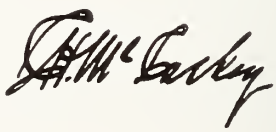
Mrs. McCaskey was with me on this vacation and I am quite sure that she enjoyed all this as much as I did.

Oh well, who cares about my vacation? But sometime when you are tired, try a rest in this Arrowhead country! This short rest has, I feel, prepared me as nothing else could to carry on my duties as your president.

Annual Meeting

The annual meeting of the Indiana State Medical Association will be held the 28th, 29th, and 30th of this month. You will note that the program is a naval participation program in which the Ninth Naval District cooperates with the state association. The Program Committee is to be congratulated for its efforts to bring this about. The Officers and Executive Committee hope that the program will be pleasing to all who attend the 94th annual convention of this association, and I personally wish to thank all who have participated in making this program possible.

We'll be seeing you September 28, 29, and 30.



(This is a continuation of the article published in the May, 1943, issue.—Editor's Note.)

PIONEER PHYSICIANS AND SURGEONS OF MONTGOMERY COUNTY, INDIANA

GEORGE T. WILLIAMS, M.D.

CRAWFORDSVILLE

SUGAR CREEK TOWNSHIP

The first emigrants to Sugar Creek Township located here in about 1828.

No record was found of any physician being located there except George W. Tucker, M.D., who was born in Parke County, Indiana, in 1844. He was educated in the common schools and the academy at Bloomingdale, Indiana. He studied medicine with his brother, Dr. J. P. Tucker, at Annapolis for three years and graduated from the Indiana Medical College in 1879. He located at Bowers, Indiana, in 1880.

FRANKLIN TOWNSHIP

In the "Historical Review of the Past Century of Franklin Township in 1936" we find that Elwood Andrews, M.D., was the first physician in Darlington, and Pleasant Winston, M.D., was the first in the township, arriving with his wife and baby in 1830. Others following were: Drs. Huggins, I. E. G. Naylor, Armstrong and Marquam in the 1840's; R. A. Williamson, Oliver P. Mahan, A. P. Rudisill and James Smart in the 1850's; Charles W. Kirk, John Nevin, John N. Curry, Thomas J. and Martha Hutchings Griffith, J. D. Hillis, Milton S. Hopper, James A. Berryman, Fall, Hill, Stout, Coffman, Bailey, G. M. Owsley, Reuben C. Dunnington, Samuel G. Rogers and Norman F. Peacock.

In Shannondale we find Drs. J. J. Shannon, Joseph A. Utter and William H. Burroughs.

Pleasant Winston, M.D., with his wife and baby came to Franklin Township in 1830 and bought land from the government on which were valuable springs, and he spent money freely in making improvements. He was a native of Virginia and of Quaker stock. He was tall and erect and always rode in a gallop. The story is told that when practice was rushing he would tie a leg of mutton on his saddle and eat his meals as he rode from house to house. He attended Jefferson Medical College. He practiced in Darlington for thirty years and died at the home of his son near LaFayette.

George M. Huggins, M.D., was the second physician to locate in Darlington. It is not known when he located, nor how long he practiced there. But in the Medical History of Indiana, by Kemper, 1911, we find that he was one of the founders of the state association formed in 1849, and the minutes show that on June 7, 1849, the committee on credentials reported favorably upon him and he was accepted as a member of the convention.

I. E. G. Naylor, M.D., was born in Charlestown, Indiana, October 9, 1819, and died in Crawfordsville, Indiana, in 1909. In 1843 he engaged in the practice of medicine at Charlestown. In 1844 he came to Darlington, forming a partnership with Dr. A. W. Armstrong. He helped recruit soldiers for the Union cause in the Civil War and was appointed assistant surgeon in Colonel Rice's Regiment from LaFayette.

James Smart, M.D., was for a time a physician in Darlington. He was somewhat eccentric. At one time he had a little office on the hill by the roadside, in what little there was of the town of Smartsburg, which was named for him. He was somewhat addicted to drink, and a great practical joker. But notwithstanding, he had a very large practice, was very successful, and had a strong-hold on the confidence of the people.

John H. Curry, M.D., was born in Crawfordsville, Indiana, August 7, 1828. His parents settled in Crawfordsville in 1822, when there were only two houses on Main Street. His preceptors were Drs. Thomas Curry, an uncle, and Magnus Holmes. He began practice at Pleasant Hill in 1848. He graduated from the Medical College of Keokuk, Iowa, in 1854. In 1866 he came to Darlington.

Joseph A. Utter, M.D., was born in 1847 and died in 1914. He read medicine with Dr. James McClelland and attended lectures at Miami University, Cincinnati; began practicing in 1870, following the allopathic system. After three years he embraced the homeopathic system of practice, graduating from the Plute Homeopathic College in 1880, and came to Shannondale in 1874.

James Allen Berryman, M.D., was born in 1836 and died in 1896. He located in Franklin Township on the banks of Potato Creek; had an extensive practice, and was assistant surgeon in the 135th Indiana Infantry. At the close of the war he returned to Potato Creek and came to Darlington in 1889, remaining there until his death in 1896.

Reuben C. Dunnington, M.D., was born in 1851 and died in 1906. He practiced in Darlington for a time, moving to Indianapolis in 1903, remaining there until his death. He was well received by the profession and enjoyed a good patronage.

John Nevin, M.D., was born in England in 1816. He studied in Scotland and spent several years at sea. He practiced in Darlington from 1865 to 1870, and then moved to Thorntown, Indiana.

Samuel G. Rogers, M.D., was born in Wayne County, Indiana, May 27, 1856, and died in Darlington May 27, 1912. He was a graduate of the Eclectic Medical College of Chicago with the class

of 1885. He came to Darlington in 1910, where he enjoyed the confidence and patronage of the community.

Charles W. Kirk, M.D., began practicing in Darlington about 1864. He later moved to the eastern part of the state.

James D. Hillis, M.D., was born in Putnam County, Indiana, September 15, 1854. He was a graduate of the University of Michigan in 1880. He located in Darlington. Some years later he formed a partnership with Dr. Milton Hopper, and later moved to LaFayette, Indiana.

William H. Burroughs, M.D., was born August 19, 1849, in Boone County, Indiana, on a farm near Hazelrigg. He attended common school and an academy at Lebanon. He studied medicine under Dr. Hogsett, at Mace, for two years. He attended Rush Medical College, and in 1875 located at Shannondale, Indiana, where he practiced for eleven years. He then entered the Medical College of Indiana, graduating with the class of 1888. He returned to Shannondale where he remained until his death, October 8, 1907. He was a very thoroughgoing gentleman of commanding appearance, an excellent physician, and his name was a household word in that section of the country.

Milton D. Hopper, M.D., was born in Franklin Township, October 30, 1851; graduated from the Ohio Medical College in 1881, and began the practice of medicine in Darlington in 1881. He formed a partnership with Dr. Hillis in 1887, later moved to LaFayette and then to Michigan City, where he gained a fine reputation in abdominal surgery.

Norman Peacock, M.D., was born in 1873 and died in 1936. He was a graduate of the College of Physicians and Surgeons, of Chicago, with the class of 1897. He located in Darlington after graduation and was successful in building up a large and growing practice. He was highly esteemed by the profession. His two sons, Dr. N. F. and Dr. W. F. Peacock are both in the Army service at this time, one in the dental section and the other in the medical section.

J. J. Shannon, M.D., was born in Woodford County, Kentucky, February 17, 1825. His family moved to Indiana in September, 1836, settling at Parkersburg, Indiana. He studied medicine with Dr. Labaree, beginning in 1845. He then moved to Shannondale where he remained and practiced until his death. The doctor's father surveyed and laid out the town of Shannondale, which was named for him. He died in 1907.

Sarah Hiatt, a midwife, was born in North Carolina, September 12, 1795. Her parents, Elisha and Mary Kenworthy, came to this county in 1823, settling near Sugar Creek in the wild woods near Darlington. She was noted for her obstetrical work. During a period of forty-two years she delivered between four and five hundred women, without the loss of a single mother. She never made a charge, but accepted any compensation given her. She departed this life February 13, 1877.

Elias Newhardt, M.D., was for many years a resident of Smartsburg. He was an easygoing German of the "Thomsonian School." He gathered "yarbs" in the fall and would then start on his teur with his big leather saddlebags stuffed with a great variety of herbs, dispensing them to his patients to make tea.

WALNUT TOWNSHIP

The earliest physicians to locate in Walnut Township after its settlement in 1824 were: Drs. Parsons, Samuel G. Irwin, and Edward Routh. They were succeeded by Drs. Hogsett, O. H. Jones, G. W. Eddingfield, Homer Bowers, Columbus L. Myers, J. R. Etter, James Dunbar, John Adkins, Frank Adkins, William N. Kelly, Charles T. Bronaugh, William N. Menefee and Charles W. Riley.

John W. Hogsett, M.D., was born in Augusta County, Virginia, November 8, 1835. In early life he was a carpenter and teacher. In the fall of 1860 he came to Crawfordsville and later to Mace, Indiana. In 1861 he enlisted in Company C, 10th Indiana Infantry, under Colonel M. D. Manson for three months, and re-enlisted in Company B, 10th Indiana Infantry. After his discharge from the Army he began the study of medicine with Dr. Samuel G. Irwin and then entered Rush Medical College for one year, and graduated from the Indiana Medical College in 1875. He was a member of the Montgomery County Medical Society.

Homer Bowers, M.D., was born in Vienna, Rush County, Indiana, August 20, 1845. In 1865 he began reading medicine with Dr. John Sloan, of Crawfordsville; spent two years in Wabash College; attended one year's course of medical lectures at Ann Arbor, Michigan; began practicing at Fredericksburg (now Mace) in 1866, but in a few months moved to New Ross where he remained until his death, November 5, 1902.

Edward Routh, M.D., practiced at New Ross in the early 40's and died in the 70's. He did not graduate from any school.

Columbus L. Myers, M.D., was born in Fountain County, Indiana, August 5, 1849. At the age of sixteen he entered school at Russellville; spent two years at Bloomington at the State University; attended the Ohio Medical College in 1871 and 1872, and the Rush Medical College in 1872 and 1873, where he graduated. He located at Jacksonville, Indiana, where he practiced for three years; was a short time in Alamo, and in 1876 settled in New Ross. He was a partner of Dr. J. R. Etter and later moved to Hillsboro, Indiana.

James Dunbar, M.D., came to New Ross after the close of the Civil War and died several years later at Battle Ground, Indiana.

John Adkins, M.D., came to New Ross in the late sixties. He spent several years at New Ross, and later located at Shannondale and Marion, Indiana.

Frank Adkins, M.D., came to New Ross after the close of the Civil War. He spent several years at New Ross and later moved to Oregon.

William N. Kelly, M.D., was born and raised at New Ross; took up the study of medicine and practiced at New Ross for two years, then moved to Jamestown, Indiana.

Charles Tinsley Bronaugh, M.D., was born in Gerard County, Kentucky, March 15, 1854. He came with his parents to Hendricks County, Indiana, in 1863, where he was educated in the schools of the county. He entered the Indiana Medical College where he graduated in 1884, and began the practice of medicine at New Ross where he remained until the time of his death. He held the office of county coroner for two terms.

William N. Menefee, M.D., was born in 1868 and graduated from Rush Medical College with the class of 1895. He located at New Ross where he did a large general practice for some years; then located in Crawfordsville where he engaged in nose and throat work. Date of death not known.

Charles W. Riley, M.D., was born in 1867 and died at New Ross on July 12, 1937. He was a graduate of the Eclectic Medical Institute with the class of 1894. He located at Mace for a number of years. He served as county coronor, afterward coming to Crawfordsville engaging in the drug business for several years. Finally he located in New Ross, where he engaged in the practice of medicine until the time of his death.

George Williamson Eddingfield, M.D., was born in Hamilton, Ohio, April 9, 1844. His parents moved to Indiana when he was a small boy and established their home on virgin soil in Montgomery County, Indiana. He received the Degree of Doctor of Medicine from Miami University at Cincinnati in the year 1872. He located for the practice of his profession at Mace, Indiana, shortly after graduation and served the community for more than forty years. He died December 1, 1926, at Cleveland, Ohio.

CLARK TOWNSHIP

Clark Township was laid out in 1830, one of the last in the county. The first doctor to locate in Ladoga after the town was laid out in 1836 was a Dr. Kelly. He was a very eccentric and peculiar individual, yet he was successful and enjoyed a wide practice.

In 1837 Dr. Carey dispensed pills and medical aid.

Later came Drs. Labaree, Hall, Bailey, Epperson, Stamper, Miller, Ruggs, Hendricks, English, Donaldson, Southerlin, Kiser, Drake, Wilson, Mahorney, Batman, Charles and Ed Lidikay, Peacock and Price.

Dr. Labaree was French and came to Ladoga in 1839 from Ohio. In those days he was considered the best physician in Ladoga and vicinity. He later moved to Ohio.

Dr. Miller came to Ladoga in 1848 and studied medicine under Dr. Kelly. He was successful, and died at an old age by drowning.

M. C. Drake, M.D., was born in 1834. He came to Montgomery County in 1854 and began the study of medicine. He graduated in the session of 1856-57 at the Jefferson Medical College, and at Bellevue in 1872. During the War of the Rebellion he served as surgeon for three years in the 15th Illinois Regiment. In 1870 he came to Ladoga where he was one of the most prominent physicians in the community.

John S. Wilson, M.D., was born in Kentucky, January 29, 1830. In 1842 he came to Indiana with his parents, locating near Bainbridge. Later, in 1849, the family moved to a farm in Montgomery County, near Ladoga, and with the exception of seven months he passed the remainder of his life in Ladoga and vicinity. He graduated from the Rush Medical College, of Chicago, and the College of Physicians and Surgeons, of Cincinnati, and held an honorary diploma from the Indiana Medical College of Indianapolis. Before he had attained his majority, he began the practice of medicine and became one of the pioneer physicians of the county. He practiced in Ladoga and vicinity for more than fifty years. Dr. Wilson was a Christian gentleman, and it can be said of him that he loved humanity, and because of that love he helped those about him to the full extent of his great ability as a physician so long as strength of body and mind would permit. Dr. Wilson and Mrs. Wilson died from natural causes on the same day, February 12, 1907.

Dr. J. C. Mahorney, M.D., was born in Montgomery County, Indiana, in 1851. He was raised on a farm until twenty-four years of age, and at the same time, having the advantages of a good education, he began the study of medicine, his preceptor being A. R. Thomas, Dean of the Hahnemann College, of Philadelphia, and graduated at that time-honored institution in 1878. He began the practice of medicine at Ladoga the following year. He enjoyed the confidence of the community, which was attested by his large practice. On the back of a photograph (a copy of which is in our collection) in Dr. Mahorney's own handwriting is the following notation:

"Dr. Mahorney is the middle siting, age 56 have bin practising 30 years today, siting to my right is Dr. Batman, age 49 years, bin practising 28 yrs. Standing behind Dr. Batman is Dr. Price, age 42 yrs. bin practising 18 yrs. to the left of Price standing is Dr. Pecock, age 40 yrs. time in practice 16 yrs. To left of Dr. Mahorney siting is Dr. Lidikay age 30 yrs, bin practising 5 yrs. The above group represents all the M.D.'s in Ladoga at this time. This picture was taken April 17, 1908."

Dr. Kiser was born in 1826 and died in 1916. No other data obtainable at this time. These dates were taken from the tombstone in the Ladoga Cemetery.

"THE BESTEST THE CHEAPEST"

ROBERT HOFFMAN, M.D.
SOUTH BEND

Virtually all medical leaders predict organized onslaughts against private practice after the war. Fortunately, we are represented by men unstinting of time and effort. Constantly they battle the very formidable opposition. Like good soldiers we must support their carefully worked-out campaign. We must avoid throwing monkey wrenches into the machine. But if the leaders' handbook (*Abolishing Private Medical Practice*, recently mailed to all A.M.A. members by the National Physician's Committee) is intended as a campaign blueprint, its scope appears very limited. It confines its attack to educating and persuading legislators to vote against opposition bills—bills substituting governmental practice for the present private type. That alone is a laudable project, but it requires no more than a hasty analysis to determine that it constitutes a remedy for the removal of menacing symptoms rather than to serve as a cure for the disease.

Boiled down to simplicity, we can confidently entrust our political battles to our leaders. But in the meanwhile we must honestly examine private practice from within. Have we honestly analyzed our strength and weakness? If so, have we rendered airtight our strong points and eliminated our weak points? Have we painstakingly determined which, if any, of the opposition's reason for change are soundly based? Only when we have thoroughly put our house in order can we followers make it possible for our able leaders to succeed, for then we have fortified our vulnerable points.

Incidentally, the American Medical Association is composed of about 160,000 active members. If each member were to approach his congressman, and if each influenced eight other persons to do likewise, the grand total would number considerably less than one per cent of the voters. Let us consider the major plank in the opposition platform. It may be summed up in one sentence, to wit: "Good medicine is too expensive for low income groups." The hackneyed answer to this contention is, "If the public would put aside as much money for sickness as it does for automobiles, cosmetics, et cetera, the expenses readily could be met." The latter is true, but the attainment of such Utopian changes can not be counted upon in evaluation of our offensive assets.

Open-mindedly let us examine several items to see in what details we can provide good medicine cheaper. First of all, the present fees for office visits and house calls are reasonable. They do not constitute the controversial fees that are considered to be beyond the means of average peoples. Diagnostic studies of chronic diseases and major surgery probably provide the majority of high total fees. Unfortunately, the more thoroughly diagnosis and treatment are practiced, the more expensive they become, but the writer believes that wiser management could greatly decrease the ever-mounting laboratory costs, x-ray costs, and hospital costs.

Ten years ago laboratorians were positive that blood tests for syphilis could not be performed for less than five dollars. Today the majority conduct the tests for one or two dollars, and the increased volume often provides larger total receipts.

X-ray films came into use about the same time as the automobile tire. Because of volume production the tire cost has been cut 75 per cent. Despite a proportionate growth in film usage, prices have remained fixed — and "fixed" isn't an inappropriate term. *"Trust Buster" Thurman Arnold, please note!*

Hospitals are gradually awakening to the fact that the patient would prefer to pay less for smaller rooms, but many build forty rooms in a space that would just as adequately care for sixty patients. Again, there are many patients observed in hospitals who could be observed just as accurately while ambulatory, and whose laboratory and x-ray studies could be effected adequately outside. Certainly the majority of diabetics and digestive disturbance cases need not be hospitalized.

Any community with fifty or more physicians, by pooling their work in one laboratory and in a maximum of two radiology groups, can provide a volume of work that should halve present fees. Such a procedure would probably increase rather than decrease the present income of such specialists.

The objection may be made that more than that ratio of those specialists desire to practice their profession. In answer, we must remember that necessary changes in providing the essentials of life always must affect a few adversely in benefitting the many. The fewer that direct such specialties, the higher will become their skill. We are indeed fortunate in practicing a profession wherein one may change his character of work and seldom wait long for adequate patronage.

These are a few suggested reforms that deserve our study. Doubtlessly one might refute phases of all of the above. A timely inventory may deprive the opposition of one of the principal contentions, allegedly warranting the substitution of so-called "socialized medicine."

Every physician who has had any experience with governmental medicine knows that the red tape and the short working hours of its physicians produce medical services that exceed the cost of

similar services privately practised. Claims to the contrary are usually predicated upon absorption of principal costs not reflected in governmental bookkeeping.

It is apparent that attempts will be made to socialize the private practice of law, during the post-war economic chaos. Fellow travelers, armed with disingenuous subterfuges are already "softening up" popular attitude. In the *Saturday Evening Post* of July 17, Jerome Frank's "White Collar Justice" advocates Federal grants for investigating law suits. In the issue of July 24, Judge Knox promptly debunks the plan, demonstrating that it would merely swell the volume of litigation without bringing about its advocated purpose.

The writer of this article believes that private practice will be the people's choice when we provide "the bestest the cheapest." By emulating our friends in industry, we can cut many of the costs and thus deprive the opposition of its principal contention. A few possibilities are presented for consideration. Whether agreeing or disagreeing with the suggestions herein offered, it is hoped that this question will be discussed by many. Out of the *pros* and *cons* sound progress should develop.

UNDER THE CAPITOL DOME

WARTIME AUTOMOBILE DRIVING LESS DANGEROUS

In Indiana the odds against meeting sudden and violent death in an automobile accident have been reduced approximately one-half as a result of changes in traffic conditions, which have been brought about by the impact of the war. These effects are: first, a reduction in the volume of traffic, and second, a drastic cut in speed.

The reductions, both in the number of automobile accidents and in fatalities, outstrip the reduction in the volume of traffic. Based upon the collection of gasoline tax—the surest barometer of highway and street traffic—there is approximately one-fourth less driving in Indiana now than during last year, but the number of persons killed in automobile mishaps thus far this year has been cut in half. The number of accidents has been reduced by nearly one-third.

The Indiana State Police traffic department has figured out that there has been a reduction of 35 per cent in the number of traffic fatalities per 100,000,000 vehicular-miles traveled. The obvious conclusions are that either speed has been a contributing factor to the highway traffic toll or that wartime motorists are more careful than peacetime drivers. Perhaps both conclusions are true.

Liquor played an increasing part in the accidents during the first half of this year, compared with the same period in 1942. Of 19,071 drivers involved in accidents this year, 1,705 had been drinking. This was slightly over 8.9 per cent. For the comparable period last year 1,009 of the 22,730 drivers had been drinking, a little over 4.4 per cent. Fifty-three drivers who were involved in fatal accidents last year, and thirty-five this year, had been drinking.

The number of persons with bodily defects, including bad eyes and hearing, who were the drivers of cars in accidents decreased considerably this year from that of last year. This year 573 defectives were in accidents, including nine in fatal accidents; last year, from January to June, 805 were involved in accidents, and 25 in fatal mishaps.

While the number of accidents decreased approximately one-third, the number of women drivers whose cars were in accidents failed to decrease by a similar amount. In the first half of last year 2,781 women drivers had accidents; this year 2,257. Had the number of women drivers figuring in accidents dropped at the same ratio as the number of accidents in the state, only 854 would have been involved. This, it was pointed out, may be due to the fact that more women are driving now, as more and more men are leaving to enter the various branches of the armed forces.

This year, state police records show, a total of 249 persons were killed in automobile accidents, and 4,038 were injured; for the relative period last year 535 were killed, and 6,688 were injured.

The accident death rate, the police report, dropped 49 per cent this year in the six-months' period, a larger drop than the 35 per cent decrease of the death rate per 100,000,000 motor-vehicular miles driven in the state.

STATE BOARD EXAMINATION

The Indiana State Board of Medical Examination and Registration will conduct its semi-annual examination for candidates for Indiana licenses September 14, 15, and 16, Ruth V. Kirk, executive secretary, has announced. The examinations will be conducted in the Claypool Hotel in Indianapolis. Thus far 120 applications to take the examination have been received, but others are expected. The board will conduct its next regular meeting October 5.

TWO LICENSES ARE REVOKED

The Indiana State Board of Medical Examination and Registration last month revoked the licenses of two licensees. The licenses revoked were those of Addison G. Moore of Delphi, and Cecil B. Hancock of Lafayette. The actions were taken at a meeting of the board July 13.

Medicine Today

LABORATORY NOTES

This is the fifth of a series of short notes in which will be outlined various aspects of the use of laboratory tests. The increasing burdens of medical practice make it desirable to use all possible means to facilitate the care of patients, and the use of laboratory aids in the diagnosis and management of cases may often save time if the tests are carefully chosen to suit the needs of the moment. It is hoped that these notes may be helpful to the physicians of the state, and that they may be the means of saving a few minutes of their precious time.

USEFUL LABORATORY TESTS IN THE EXAMINATION OF THE CEREBROSPINAL FLUID

The examination of the cerebrospinal fluid is often of great aid in the diagnosis of lesions of the central nervous system, but it is important to be sure that the tests performed on the fluid are carefully selected so that the greatest possible information may be obtained from the examination. It is also important to choose the tests judiciously so that unnecessary tests may be omitted. A specific statement of the tests that are desired should accompany the spinal fluid specimen when it is sent to the laboratory, rather than simply requesting "spinal fluid examination" as is so often done.

The following is a list of the more useful tests which may be employed in the examination of the spinal fluid.

A. Tests of Primary Importance

1. Total cell count.
2. Differential cell count.
3. Globulin qualitative test.
4. Test for syphilis.
5. Bacteriological examinations.

B. Additional Useful Tests

1. Total protein.
2. Colloidal gold reaction.
3. Urea estimation.
4. Chloride estimation.
5. Glucose estimation.
6. Alcohol estimation.
7. Fibrin clot examination.

Note: It should be observed that the examination of the spinal fluid should be carried out as soon as possible after the fluid has been withdrawn, since several of these examinations are of little use after a matter of six or eight hours. Keeping the fluid in the ice box will reduce but not arrest this deterioration. Because of these facts it is usually not possible to send spinal fluid by mail, although some of the tests—notably tests for syphilis—may be carried out on spinal fluid even after several days.

It is well to collect the fluid in two or three separate containers which should be sterile and tightly stoppered.

DISCUSSION

A. Tests of Primary Importance

1. *Total cell count. Range of normal values: 0 to 10 cells.*

The presence of a marked increase of cells in the cerebrospinal fluid is definite evidence of an inflammatory lesion of the central nervous system. As a rule, the higher the cell count the more severe is the inflammation, and changes in the total number of the cells is a good indication of the course of the case.

2. *Differential cell count. Normally all cells in the spinal fluid are lymphocytes.*

The presence of erythrocytes in the spinal fluid is usually an indication of a recent hemorrhage, although sometimes the puncture needle may cause enough bleeding to be confusing. Usually the bleeding caused by the puncture will only appear in the first few drops of fluid, so these should be collected in a separate container. The presence of polymorphonuclear leukocytes is certain evidence of acute inflammation of the central nervous system, while increased numbers of lymphocytes or other mononuclear cells are indicative of subacute or chronic inflammation. The changes observed in the relative numbers of these cells indicate the course of the inflammatory process.

3. *Qualitative test for globulin. (Pandy or Ross-Jones) Normally negative.*

A positive test for globulin is usually an indication of inflammation within the cerebrospinal tract, and the degree of positivity is roughly proportional to the severity of the lesion. The presence of demonstrable globulin is found also in cerebral hemorrhage and cerebral tumors. It is frequently better to estimate the total protein by a quantitative method.

4. *Tests for syphilis. Normally negative.*

The type of test to be conducted may depend on the facilities of the laboratory where the test is carried out. Many believe that a complement fixation test is to be preferred, but the Kahn and Kline tests are generally found to be dependable. The presence of a negative blood test for syphilis is no proof that the spinal fluid may not be positive in neurological syphilis.

5. *Bacteriological examinations.*

With the exception of some cases of tuberculous meningitis, it is useless to make smears or cultures when the spinal fluid is clear. In *all* cases of cloudy fluid, smears and cultures should be made. Further bacteriological examinations, such as special cultures and animal inoculations, may be used in special cases.

B. Additional Useful Tests

1. *Total protein. Normal range of values: 15 to 45 milligrams per 100 cc. of spinal fluid.*

Increases in the amount of the total protein are found in all inflammatory lesions of the central nervous system. Increases are found also in some tumors of the brain and spinal cord, and in some cases of rupture of the nucleus pulposus. The

amount of increase is proportional to the severity of the lesions. Increases in total protein parallel the findings in the qualitative test for globulin, but this is a more accurate test and the trend of values in repeated tests is often helpful.

2. *Glucose. Normal range of values: 40 to 70 milligrams per 100 cc. of spinal fluid.*

If the spinal fluid is cloudy, glucose is almost always entirely absent, so there is no need for making the test. In tuberculous meningitis the spinal fluid glucose is usually lowered, and so the test should be made in all cases which are under suspicion. The glucose level is often elevated in encephalitis and in some cases of poliomyelitis. It is well to remember that the spinal fluid sugar level follows the blood level, so it will be elevated in any form of hyperglycemia, and it is usually a good idea to do a blood glucose estimation at the same time for comparison. The spinal fluid glucose determination should be made as soon as possible after the withdrawal of the fluid since the glucose disappears rapidly at room temperature.

3. *Urea. Normal range of values: 10 to 20 milligrams per 100 cc. of spinal fluid.*

The spinal fluid level follows the blood level, and so the spinal fluid may be used instead of the blood when it is more convenient. It is often desirable to make this test in cases of unconsciousness where a possibility of uremia must be considered.

4. *Chlorides. Normal range of values: 720 to 750 milligrams per 100 cc. of spinal fluid.*

The spinal fluid chlorides are usually decreased in meningitis, especially in tuberculous meningitis. Any change in the blood chlorides level is reflected in the spinal fluid level.

5. *Colloidal gold reaction.*
Normal test: 0000000000.

First-zone reaction, —555432100, is found in many cases of paresis, and in some cases of early disseminated sclerosis.

Mid-zone reaction, —123421000, is characteristically found in syphilitic meningo-encephalitis and tabes.

End-zone reaction, —001234554, is found in acute meningitis.

6. *Alcohol. Normally negative.*

The spinal fluid alcohol parallels the blood alcohol level, so it is possible to use the spinal fluid in making a test for alcoholic intoxication. In case of coma it may save time to test the spinal fluid for alcohol rather than make the test on the blood.

7. *Fibrin clot examination. Normally no clot forms in the spinal fluid.*

In many cases of central nervous system lesions in which there is an increase in the protein of the spinal fluid, fibrin clots of various kinds will form in the fluid after variable periods. The most characteristic is the delicate fibrin pellicle that forms in many cases of tuberculous meningitis. An examination of this pellicle for the bacilli of tuberculosis is the most positive way of identifying a tuberculous meningitis. Examination of other forms of clots is not usually informative.

VOICE OF MEDICINE

Salem, Indiana
August 10, 1943

Indiana State Medical Association.

Dear Sirs:

The Washington County Medical Society desires to place itself on record as being unanimously and wholeheartedly opposed to the idea of socialized medicine, under whatever name and in whatsoever guise it is being promulgated; even though it has the blessing of the State Medical Association and the approval of the State Board of Health, we still believe that it is not in harmony with the "American way of life."

There are but six medical doctors in this county serving a population of some 17,000 people. These doctors do not feel that they are being overworked and are not complaining although each and every one of them is giving freely of his time and talent to the best of his ability, every service asked of him by his government. And there are no complaints from his clientele as to a lack or inadequacy of service because of this gratuitous effort.

We are *not* convinced—we do *not* believe, that the boys who are fighting our battles overseas have any wish to see their families made the guinea pigs of a false paternalism, under the guise of patriotism.

In this county no soldier need fear that his wife and children will fail to receive proper medical attention, whether able to pay for such service or not.

To our knowledge, not one has failed to receive the best of care within the limits of the physicians' ability; and no fees have been charged that have worked the slightest hardship upon any recipient.

The truth of the matter is that, for the most part, these wives are living with their parents—they have greater incomes and less expenses than ever before in their lives, but, being only human and without a knowledge of the ethics involved in this setup, many of them would no doubt be willing to accept free medical service as a further gratuity from a grateful Uncle.

However, if those who are responsible for the spawning and the furtherance of this brain-child feel or believe that the soldiers' wives in this community will not receive adequate care at the hands of the resident physicians, we can only say that there will be *no* objections raised by us, if the Board desires to place a physician of its choice in our midst, in order that those who wish may take advantage of such service as he may render.

L. W. Paynter, M.D., *President*,
Washington Medical Society.

Military News

Lieutenant Sydney S. Norwick, of Indianapolis, is serving with the armed forces in North Africa.

Captain Palmer Eicher, former Decatur physician, was recently in his home town for a visit. He has been serving in the southwest Pacific with the Medical Corps of the Army.

Dr. Clarence B. LaDine, formerly of Indianapolis, has been advanced to the rank of major in the Army Medical Corps. He has been stationed with a hospital unit in Iceland for eleven months.

Former Greencastle physician, Captain G. D. Rhea, has been transferred from Yakima, Washington to an A.P.O. address, 441, Camp Granite, c/o Postmaster, Los Angeles, California.

Former Columbus physician, Major William B. Sigmund, is now serving with an evacuation hospital at Camp Young, California. He was transferred from Camp McCain, Mississippi.

Captain T. O. Dorrance, of Bluffton, has been transferred from Camp Grant, Illinois, to somewhere overseas. His new address is A.P.O. 181, c/o Postmaster, Los Angeles, California.

Announcement has been made of the promotion of Dr. Willard C. Smullen, former Rushville physician, to the rank of major. Major Smullen is now serving with an evacuation hospital at Camp Shelby, Mississippi.

Lieutenant Colonel John E. Wyttenbach, of Indianapolis, spent a few days here while on a leave. He is now surgeon of the Twelfth Replacement Depot, Camp Sutton, North Carolina, having been transferred from Macon, Georgia.

We have been informed that Captain Richard J. Sanderson, former Westville physician, has been awarded a medal for bravery beyond the call of duty, while serving as a flight surgeon with a bomber squadron somewhere in New Guinea.

Lieutenant Max Ganz, formerly of Marion, was one of three American doctors who received special awards for post-graduate work in tropical diseases, according to an article which appeared in a Palestine magazine, a copy of which was sent to Mrs. Ganz.

Major Richard B. Stout, of Elkhart, is now chief of the surgical section of a hospital in the North Pacific area.

Former Monticello physician, Captain John C. Carney, is now home on leave of absence. He has been stationed overseas.

Captain Floyd L. Grandstaff, of Decatur, has been transferred from Randolph Field, Texas, to Nashville, Tennessee, for further training.

Lieutenant Sydney Norwick, former Indianapolis physician, gives his address as A360805, A.P.O. 252, New York City. We are, indeed, pleased to hear that THE JOURNAL is reaching Lieutenant Norwick, wherever he may be.

Commander A. H. Duemling, M.C., U.S.N.R., formerly of Fort Wayne, is a senior medical officer of the Amphibious Force, Atlantic Fleet, at Little Creek, Virginia, where he is at the head of the dispensary department.

Lieutenant Thaddeus Lorenty, of Gary, has been awarded the African Campaign Medal by the United States War Department. Lieutenant Lorenty has been overseas for a year, having been stationed in England before being transferred to North Africa.

Lieutenant Commander John W. Ferree, former secretary of the Indiana State Board of Health, has been transferred from Parris Island, South Carolina to the Department of Public Hygiene, Johns Hopkins University, Baltimore, Maryland. Commander Ferree recently spent a few days in Indianapolis before going to his new post.

Friends of Lieutenant Nelson Kauffman, formerly of Indianapolis, who is now a prisoner in a Yokohama prison camp, will be interested and pleased to know that a message sent by Lieutenant Kauffman was recently picked up by a shortwave receiver, E. E. Alderman of Dayton, Ohio, who has received 1,200 messages from Tokyo. The message said that Lieutenant Kauffman had received Red Cross parcels, and he sent regards to his Indiana friends. He added, "Good old Indiana; can't get Indiana off my mind." In relaying the message to Lieutenant Kauffman's mother, Mr. Alderman added: "Your son's voice was quite clear and it sounded happy and without duress."

Dr. Jack Shields, of Medora, has been commissioned a first lieutenant and has reported to Carlisle Barracks, Pennsylvania, for six weeks' training as a flight surgeon.

Lieutenant Commander M. E. Gross recently spent a week with his family at Ladoga. He had been stationed on Midway Island with the United States Navy, but was transferred to another Pacific area.

Lieutenant William Sholty, of Lafayette, has joined the armed forces. At present he is at Carlisle Barracks, Pennsylvania, but expects to be sent to Camp Carson, Colorado, following the completion of the refresher course.

The Anderson Bulletin of August 7 carried a photograph of two Anderson physicians, Lieutenant Voris McFall and Captain Paul Long, who recently met on Guadalcanal. They stood alongside an ambulance which was manufactured in Richmond, Indiana. This is a small world after all.

Major Frank Kendrick recently spent a few days with his family in Gary. He reported having met Dr. Ralph Elliott and Dr. J. A. Carbone in North Africa, so the three Gary physicians had dinner together. Major Kendrick has been in service almost three years and has traveled extensively in the battle areas, and was recently in Gibraltar for a time. He is surgeon on a troop transport.

The following is an abstract from a letter written by Captain John C. Carney, formerly of Monticello, to his mother: "I had a nice and interesting tour of about one hundred miles with some native friends of ours. The trip was made in an Austin sedan. I saw the most beautiful scenery I have seen since we departed from the states. We were in some real historical settings." Captain Carney left for duty overseas last August.

Lieutenant Commander Lester D. Bibler, former Indianapolis physician, recently visited friends in Indianapolis after serving overseas for sixteen months. He stated, "We have an excellent medical setup and make extensive use of sulfa drugs and blood plasma. We also have a new method for treatment of fractures. The boys are well taken care of. Where field equipment is not adequate emergency cases are immediately evacuated to hospitals. We use airplanes in the islands, just as you use street cars here." He also told of playing golf in Samoa where the caddies, after every three or four holes, climb coconut trees and serve the milk of the coconuts to the players.

Dr. Paul Tischer, of Indianapolis, has been promoted from the rank of first lieutenant to captain in the Army air forces at Chanute Field, Illinois.

Captain Don E. Kelly, former Indianapolis physician, in writing to Dr. C. H. McCaskey, reported that everything is coming along fine in North Africa.

Lieutenant Frank W. Oliphant, former Mount Vernon physician, is now serving somewhere in North Africa. He said everything is fine except that the mercury goes up a little high; that it was 110 but that he was told that was just spring—wait until summer.

Dr. Dan L. Urschel, of Mentone, has been commissioned a first lieutenant in the Army Medical Corps and is stationed at Santa Barbara, California.

We quote from Lieutenant Urschell's letter, as follows:

"I certainly can say that I have been very happy and contented during my short time in the Army. I was immediately assigned to cardio-vascular diseases, which is, as you know, my principal interest besides brucellosis.

"The staff here is of the highest calibre, and teaching is good. The attitude of the townspeople is fine, and we feel very welcome. This is in contrast to stories we have heard about certain stations. For one thing, we are the only close military installation, and that makes for a more congenial attitude.

"In other words, I surely hope that I can stay here, although that is entirely out of my hands."

It seems that THE JOURNAL finally caught up with Lieut. Donald I. Dean, formerly of Rushville, who wrote as follows:

"After fighting the 'Battle of . . .' for the better part of a year, the first copy of THE JOURNAL that has reached me arrived today, the July issue. I hasten to advise you of my new address, as I would certainly like to receive it regularly.

"I was only recently transferred to this outfit, where I do the eye work and am registrar. Whom did I find here but Don Close, with whom I have spent considerable time reminiscing about medical school days and griping about the weather, of which we have seen plenty.

"We have a d—— good outfit and are set up and equipped to handle almost anything. We manage to keep fairly busy, but are far from over-worked.

"Appreciate your periodic 'MEDSOC' V-letters."

By all means keep us informed of your address, for we are trying to reach all of our members. Lieutenant Dean's address is O-471482, A.P.O. 610, New York City, N. Y.

Former Indianapolis physician, Lieutenant Commander B. W. Cohen, recently spent a few days at his home. He has been in active service in the Pacific for two years, having witnessed the bombing of Cavite, Sabu, Bataan and Corregidor. Time seems to be in his favor, for he has had many narrow escapes, and territory where he had been stationed fell into Japanese hands a short time after he left.

Captain August J. Dian, formerly of Gary, has informed us of a change in his address to conform with the latest Army and postal regulations. His present address is as follows: A.P.O. 830, c/o Postmaster, New Orleans, Louisiana, Box "MM," H-10. Captain Dian said, "I wish to inform you that I have been receiving THE JOURNAL regularly every month since I have been assigned here. I particularly enjoy reading the 'Military News,' which keep me informed about the doings of my classmates and others. I also enjoy reading the V-Mail which you have been sending out regularly." It is gratifying to know that THE JOURNAL is reaching our members in the armed forces—remember to keep us informed of changes in address.

The first typed V-letter we have seen came to us from Lieutenant O. R. Wilson, formerly of Shelbyville, whose letter we quote:

"As one of the wandering Hoosiers in the Pacific Area, I wish to thank you and the state society for their thoughtfulness in sending THE JOURNAL to us. It is with great pleasure that I read each issue. We have our own little meetings here in which we discuss the various journals which reach us. In this way we hope to keep up so we will be able to do our share of the work if and when the occasion ever arises here.

"I have little of interest to report from this outpost of civilization except that we, like the Marines, have the situation well in hand. Our island is a very pleasant place to be except for the complete isolation. There are no towns here and we have not seen any of the fairer sex in some six months.

"I can highly indorse this as a fishing ground. We often have fish added to our menu. Another popular pastime is pearl shell handicraft and the making of necklaces from small shells which we find along the beaches. These products often sell for twenty or thirty dollars.

"Please give my greetings and best wishes to the others on other fronts, as well as to the less fortunate who are carrying on at home. We all realize that theirs is a thankless job and a much harder one than ours except for those who are on the active battle fronts. You are doing a wonderful job and we hope to join you in enjoying the fruits of victory in the near future."

Lieutenant Wilson's address is A.P.O. 915, San Francisco, California.

Word has reached us to the effect that Dr. Robert Owsley, former Hartford City physician, has been advanced to the rank of major. He is now stationed at Bowman Field, Louisville, Kentucky.

In response to the questionnaire sent out by the Indianapolis Medical Society, in which they asked what the state association can do to help the men in the armed forces, Lieutenant O. P. Hannebaum, formerly of Indianapolis, replied as follows: "Send them any old fishing equipment that can be fixed up and used, such as plugs, spinners, spoons and reels. The boys will be glad to paint and polish them, and it is impossible to buy, beg or borrow light tackle along the coast. Fishing is the main diversion in outlying bases such as this. I even fish a little myself." Lieutenant Hannebaum is serving at a Navy Section Base in California.

We are informed that one of the most rapidly growing officer corps in the Army at the present time is the Medical Administrative Corps, a non-medical group which is combining its knowledge of supply, evacuation, personnel, and training methods of the Army to work with the professional men in making the Army Medical Department the worker of miracles that it is.

Non-commissioned officers from all branches of the service train at the Medical Administrative Officer Candidate School at Camp Barkeley, Texas, having been carefully chosen by selecting boards. A large number of the candidates come from the Medical Department's enlisted men, and often have highly specialized civilian training in such fields as pharmacy, drug sales, embalming and mortuary, chemistry, hospital administration, and pre-medical training.

These picked men are given a tough, intensive course at the Camp Barkeley school, the only Medical Administrative school since Carlisle Barracks, Pennsylvania, was taken over completely by the Medical Field Service School in March. Courses in logistics, tactics, sanitation, administration, chemical warfare and allied subjects enable the new second lieutenants to qualify for practically any job in the Medical Department which does not require professional skill, positions which medical corps men have often been forced to undertake instead of medical and surgical work.

The school at Camp Barkeley is now working overtime to turn out new second lieutenants, graduating a new class of from 200-400 officers every two weeks. There have been over 6,000 graduates of the school in the year of its operation, Class XVI being graduated on May 26.

Commandant of the school is Brigadier General Roy C. Heflebower, who is also commandant of the Medical Replacement Training Center. Colonel George E. Armstrong, Medical Corps, has been assistant commandant of the school since its founding.

WHAT WENT ON DURING WORLD WAR I

(Items from THE JOURNAL of September, 1918.)

The new addition to Mercy hospital, at Gary, was to be dedicated on October sixth.

* * *

The September number carried but one scientific article, that by William A. Hollis, Hartford City, on "Epidemic Streptococcus Infection of the Nose and Throat Clinically Considered."

* * *

Editorially, there were numerous articles having to do with the wartime picture. The lead editorial, of course, was a brief biography of the president, J. Rilus Eastman, of Indianapolis. There also was much comment on the newly-organized "Volunteer Medical Service Corps," an organization whose chief purpose was to enroll medical men who, because of age or other disabilities, might be officially recognized as having offered their services during time of war.

* * *

In the main, THE JOURNAL was devoted to the forthcoming annual convention, Indianapolis, September 25-27. Headquarters were to be established at the Claypool Hotel, where all meetings, smokers, et cetera, were to be held. The smoker was to be the only form of entertainment, and a "patriotic meeting" was to take the place of the annual banquet.

* * *

The arrangements committee naively announced, "The ladies will be welcomed and every effort will be put forth to make their stay in the city a pleasant one, but no special entertainment of any kind whatsoever will be given for visitors."

* * *

The Interstate Association of Anesthetists held a meeting in Indianapolis at the same time as the Indiana State Medical Association. There was one joint meeting in which both groups participated.

* * *

The financial report of the Administration Committee afforded some interesting figures. The 2,367 members had paid annual dues of four dollars, and this, together with other monies, brought the annual income up to $11,368.47, with a total expenditure of $5,675.59. We had paid our part-time Executive Secretary $900.00 for his year's work.

Section meetings were "out" for this meeting, all sessions being general in character.

* * *

The Huntington County physicians had adopted a new fee bill, advancing charges for their services.

* * *

Some two pages of THE JOURNAL were filled with orders to Indiana Medical Reserve Officers, who were being moved about the country as well as being sent abroad.

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Dr. J. P. Salb, Jasper, former president of the Indiana State Medical Association, had four sons in military service, two of them in the Medical Corps. A fifth son was expected to enter service in a short time.

* * *

Drs. Paul Bowers, prison physician at Michigan City, and Fred W. Terflinger, superintendent of the Northern Indiana Hospital for the Insane, had been given leave of absence, that they might enter the service.

* * *

Dr. Frank B. Wynn, on vacation in the western country, where he was indulging in his favorite sport, mountain climbing, had received word from Washington that he was needed there by the Council of National Defense. He "came down the mountain" and made a hurried trip to Washington where he assumed his new duties.

* * *

Chairmen of the Volunteer Medical Corps were named in every county of the state; each physician was urged to call upon every physician in his county and see to it that every man had signed up with either this organization or the regular Medical Corps.

* * *

The editor forgot to mention the medical prolocuter whose picture adorned one of the pages of the September, 1918, Convention issue; he being at that time the secretary of the Ear, Nose and Throat Section. He was none other than E. M. Shanklin, M.D., of Hammond, and it will be well worth your while to revert to those pages for another glimpse of that 1918 version of tonsorial and sartorial perfection.—*Not by the Editor.*

Deaths

James M. White, M.D., of Gary, died suddenly at a local hospital on August fifth. He was forty-five years of age and had practiced in Gary since 1926. Doctor White graduated from the Northwestern University Medical School, Chicago, in 1926, and was especially interested in obstetrics and gynecology.

James M. White, M.D.

At the time of his death he was serving as examining physician for Gary Draft Board No. 9 and as a member and secretary of the Lake County Selective Service Appeal Board.

Doctor White was a former president of the Gary Board of Health. In 1936 he was the president of the Lake County Medical Society, and was elected to the same office in the Tenth District Medical Society. From 1938 to 1942 he served as councilor of the Tenth Councilor District of the Indiana State Medical Association.

He was a member of the Lake County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

Benjamin F. Gumbiner, M.D., of Gary, died July seventeenth, at the age of forty-seven. He was a graduate of the Rush Medical College, Chicago, in 1920. He was a member of the Lake County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Frank E. Hill, M.D., of Muncie, died on July fifteenth. He was eighty-one years of age. He graduated from the Medical College of Ohio, Cincinnati, in 1890. Doctor Hill was a member of the Delaware-Blackford County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

Andrew F. Gugsell, M.D., of Ferdinand, died on August tenth at a Huntington Hospital. Dr. Gugsell was sixty-seven years of age. He graduated from the Kentucky School of Medicine, Louisville, in 1907.

Edward H. Katterhenry, M.D., of Indianapolis, died on August eighth. He was sixty-nine years of age. Dr. Katterhenry graduated from the Gross Medical College, Denver, Colorado, in 1897.

Charles P. Leuthart, M.D., of New Albany, died July sixteenth, at the age of seventy. He was a graduate of the Kentucky School of Medicine, Louisville, in 1901. Doctor Leuthart was a member of the Floyd County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

Horace M. Paynter, M.D., of Salem, aged seventy-eight, died on August eighteenth. He graduated from the University of Louisville School of Medicine in 1890.

Arthur H. Wilson, M.D., of Indianapolis, aged sixty-seven, died on August third. He graduated from the Indiana Medical College, School of Medicine of Purdue University, Indianapolis, in 1907.

Charles U. Thralls, M.D., of Hymera, died on August twenty-third. He was sixty-five years of age. He graduated from the Illinois Medical College, Chicago, in 1903.

Frank W. Merritt, M.D., of Gary, died on August eighteenth. He was sixty-one years of age. He graduated from the University of Illinois College of Medicine, Chicago, in 1905 and had limited his practice to Industrial Medicine. He had devoted his thirty-eight-year career to the Medical Division of the United States Steel Corporation, of which he was the chief surgeon.

Doctor Merritt was a member of the American College of Surgeons, of the Lake County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

News Notes

Dr. Helen M. Richards, formerly of Vincennes, now located at Athens, Tennessee, has accepted a fellowship at Harvard University for special study, beginning in October.

Herman M. Baker, M.D., of Evansville, was appointed president of the Indiana State Board of Health at a meeting of the Board on August first. He has been a member of the Board for several years, and has also served previously as its president.

The ninth annual meeting of the Mississippi Valley Medical Society will be held at Quincy, Illinois, September 29 and 30, 1943. This society is organized solely for post-graduate instruction, especially arranged to appeal to physicians in general practice.

Dr. Augustus P. Hauss, of New Albany, has been reappointed trustee of the Southern Indiana Tuberculosis Hospital.

Dr. Benjamin Speheger, of Bedford, was recently given an honorable medical discharge from the Medical Corps. He had served as a lieutenant in the Army air force.

PHYSICAL THERAPY MEETING

The American Congress of Physical Therapy will hold its twenty-second annual scientific and clinical session, Wednesday, September 8, 9, 10 and 11, 1943, at the Palmer House, Chicago. Rehabilitation is in the spotlight today—physical therapy plays an important part in this work. For information concerning the instruction course and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

WARTIME HEALTH CONFERENCE

The Wartime Conference and the 72nd Annual Business Meeting of the American Public Health Association will be held in New York City, October 12-14. The Hotel Pennsylvania will be headquarters. Health workers within easy access of New York City are invited to attend. Representation of distant areas will be provided by individual appointed delegates.

A "Convention by Radio" during which the resolutions, the transactions and as much as possible of the program of the Wartime Conference, will be broadcast to members at home.

Further information may be obtained from the American Public Health Association, 1790 Broadway, New York 19, New York.

Dr. Charles Hupe, of Lafayette, recently celebrated his eighty-sixth birthday. He has been serving as a physician in Lafayette for sixty years.

At the annual organization meeting of the Indianapolis Board of Public Health, on July sixteenth, Dr. Leonard A. Ensminger was elected vice-president. Dr. Herman G. Morgan was reappointed to serve his thirty-second consecutive year as secretary of the Board.

FILM DEMONSTRATING CONTINUOUS CAUDAL ANALGESIA IN OBSTETRICS

A 16-mm. silent motion picture in color on the subject, "Continuous Caudal Analgesia in Obstetrics," has been released by Ely Lilly and Company, Indianapolis. The film is available to physicians for showing before medical societies and hospital staffs. It deals with the history, anatomy, and physiology of caudal analgesia and demonstrates the technic of use in obstetrics.

The film was made at the U. S. Marine Hospital, Staten Island, New York, by authorization of the Surgeon General, U. S. Public Health Service, and the demonstrations were carried out by the originators of the technic, Dr. Robert A. Hingson and Dr. Waldo B. Edwards.

EXAMINATIONS

Applications for the 1944 examinations of the American Board of Obstetrics and Gynecology, Inc., are being received at the office of the Secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pennsylvania. Booklets of information regarding Board requirements and examinations, together with application forms, will be sent upon request. All applications for the year 1944 must be in the secretary's office not later than November 15, 1943.

Candidates are required to take both the Part I and Part II examinations. The Part I examination consists of the written paper and the submission of twenty-five case history abstracts, and will be conducted on Saturday, February 12, 1944. This examination will be arranged so that the candidate may take it at or near his place of residence. Upon the successful completion of the Part I examination, candidates are eligible for the Part II examination consisting of a pathology and an oral examination. This is given at the annual meeting of the Board once each year, the time and place of which will be announced later.

The Office of the Surgeon General (U. S. Army) has issued instructions that men in Service, eligible for Board examinations, be encouraged to apply and that they request orders to "detached duty" for the purpose of taking the examinations whenever possible.

At Indiana University, where there are now seven hundred men enrolled as regular students in the university's Army specialized training program, the army's chief medical officer is Dr. Edith Schuman of Bloomington, Indiana. She, with her staff of physicians, nurses, nurses' aides, technicians, and office assistants is not only responsible for the health of these Army men, but, in addition, is the executive of the student health center of the regular student body on the I.U. campus.

Dr. Schuman has such duties as making the preliminary examinations for the Air Corps, Medical Reserve Corps, and other branches of the Army, and giving the typhoid, paratyphoid, anti-tetanus and smallpox immunization vaccinations required by the Army. These Army students report to her at the twice-daily sick calls. In addition, she has her former duties of examining all new students at the university, diagnosing and treating the students who call at the dispensary. During the past year in the dispensary, 33,400 treatments were given and in the infirmary 690 patients were given medical care. The health center also safeguards the students' health by analysis of water and milk supplies and checking the health of the personnel in university-operated dining rooms.

The Army has required an addition to the health center building. This will provide hospitalization for seventy patients and will be completed by September.

WARTIME GRADUATE MEDICAL MEETING

A Wartime Graduate Medical Meeting will be presented by the staff of Billings General Hospital, at Fort Benjamin Harrison, in coöperation with the Indianapolis Medical Society, on September 8, 1943. The meeting was arranged by Colonel H. L. Dale and was announced by Lieutenant Colonel G. A. Owsley. This is an all-day meeting, beginning at 10:00 A.M., and will afford some excellent material for both those in civilian life and in the armed forces. Speakers will be Lieutenant Colonel Franklyn A. Rice, Chief, Surgical Service; Lieutenant Colonel Raymond J. Borer, Acting Chief, Medical Service; Major George A. Boylston, Chief, Gastro-Intestinal Section; Captain Lent C. Johnson, Assistant, Laboratory Section; Major Edward W. Cullipher, Chief, Orthopedic Section; and Sidney W. Gross, M.C., Chief Neurosurgical Section. Drs. James O. Ritchey, Clyde Culbertson, E. B. Mumford and Robert L. Glass, all of Indianapolis, will take part in the discussions.

Medical meetings presented by the medical departments of the Army and Navy, in cooperation with The Medical Division of Civilian Defense and the Indianapolis Medical Society, have been arranged for the second Tuesday of each month and will be held at the Indianapolis Athletic Club. Colonel Dale said, "It is my sincere wish that this Medico-Military program yield a close relationship between civilian physicians and physicians in the armed forces."

SURGICAL AND MEDICAL EQUIPMENT NEEDED

For distribution to French military hospitals in North Africa, the Medical and Surgical Relief Committee has shipped $5,710 worth of medical equipment to the French Red Cross in Algiers, announced Mrs. Huttleston Rogers, executive chairman of the committee. To relieve the shortage of medical supplies, and to support the work of rehabilitating French troops, the Committee in coöperation with the American Red Cross, has launched a program of French military medical aid.

"Practically every sort of surgical and medical equipment is needed . . . from ordinary gauze and thermometers to tryparsamide and complicated microscopes. To meet the demands of exhausted medical depots and hospitals, the committee looks to the support of everyone who hopes for the liberation of France," declared Mrs. Rogers. The rally-cry chosen for this campaign is "Help Return French Soldiers to the Fighting Front" . . . "where they so impatiently wish to be," added Mrs. Rogers.

A $100,000 goal has been set by the Medical and Surgical Relief Committee for the North African medical project. To date, over $7,000 has been donated by the committee. The first shipment of medical supplies, valued at $1,300, has arrived safely in Algiers.

PSYCHIATRIC RESIDENCIES AND INTERNSHIPS

At St. Elizabeth's Hospital, the Federal institution for the treatment of mental disorders, Washington, D. C., fine opportunities for psychiatric residencies and rotating internships are open to recent graduates of medical schools; these residencies and internships rank among the best in the United States. The institution has 7,000 patients, including members of our armed forces who are casualties of the present war.

The rotating internship consists of 1 year of rotating service, including medicine, surgery, psychiatry, laboratory, pediatrics (affiliation), and obstetrics (affiliation). Applicants must be fourth-year students in a Class A medical school or they must have successfully completed their fourth year of study in a Class A medical school subsequent to December 31, 1935. The duties of Junior Medical Officer (rotating internship) are those of an intern assigned to medical, surgical, and laboratory services, and out-patient clinics.

It is possible that women may be utilized in these positions. Appointments to the above positions will be made at various times during the year as vacancies arise. The positions pay $2,000 a year (plus $433 overtime pay). There are no age limits for these positions. No written test is required. Persons now using their highest skills in war work should not apply. Appointments in Federal positions are made in accordance with War Manpower Commission policies and employment stabilization plans.

INDIANA UNIVERSITY NEWS NOTES

Wounded veterans of the present war in many instances will be afforded opportunities to rehabilitate themselves for gainful employment as the result of recommendations recently made by Mrs. Winifred Conrick Kahmann, director of occupational therapy and physiotherapy at the Indiana University Medical Center, and two other occupational therapists serving as a committee of the National Research Council.

Requested by the War Department to study the use of occupational therapy in rehabilitation of war wounded, the National Research Council soon after the entry of the United States into the war appointed a committee consisting of Mrs. Kahmann, Mrs. John A. Green, president of the Boston School of Occupational Therapy, and Miss Sue Hurt, director of occupational therapy in the Richmond, Virginia, Professional Institute.

The committee, working under the direction of Dr. William Overholser, superintendent of St. Elizabeth's Hospital, Washington, D.C., recommended a distinct classification in the government civil service for occupational therapists in military and veterans' hospitals. This recommendation recently was accepted by the United States Civil Service Commission, which has set up in the civil service a special corps in the medical division.

The Civil Service Commission, Mrs. Kahmann and her associate committee members have been informed, soon will issue an initial call for three hundred occupational therapists, thereby relieving the shortage now being experienced in military hospitals in that field and also providing new opportunities for women wishing to take up occupational therapy as a profession. Salary scales with a base of $2,000 a year for directors and $1,800 a year for assistant directors have been established by the Commission.

Fourteen schools in the United States have been approved for training in occupational therapy. The Indiana University School of Medicine gives clinical training both for occupational therapy work with children, and in the general field to graduates of the schools at Boston, Philadelphia, St. Louis, and two schools in Milwaukee. The clinical training for children's work, requiring three months, is given at the James Whitcomb Riley Memorial Hospital, and the training for general work, requiring an additional three months, is given at the Robert W. Long and the William T. Coleman hospitals at the Medical Center.

Dr. Robert J. Masters, widely-known Indianapolis eye specialist, has been made head of the Department of Ophthalmology in the Indiana University School of Medicine, it was announced by Dean W. D. Gatch.

The appointment carries with it the rank of full professor for this Indianapolis physician who is secretary of the American Medical Association's Section on Ophthalmology and senior faculty member of the American Academy of Ophthalmology and Otalaryngology. He has been a member of the faculty of the Indiana University School of Medicine for several years with the rank of assistant professor.

As the new head of the University's medical school department, Dr. Masters will take over the administrative duties of Dr. William F. Hughes, who has been chairman of the department since 1934 and who will continue active relation with the department as a teacher and also with his professional work.

Born in Indianapolis, Dr. Masters is the son of the late Dr. John L. Masters, a pioneer leader in treatment of diseases of the eye. He attended Butler University, received his B.S. and M.D. degrees from Indiana University, and continued his studies at the University of Pennsylvania Graduate Medical School. His son, John, a senior in Indiana University School of Medicine, recently accepted an internship in Gorgas Hospital, Canal Zone.

Indiana's crippled children will receive additional aid through three bequests to the James Whitcomb Riley Hospital of the Indiana University Medical Center, announced by James W. Carr, secretary of the James Whitcomb Riley Memorial Association.

The hospital will obtain nearly $40,000 following settlement of the estates of Miss Ethel Alley of Indianapolis and Detroit, Michigan, and Mrs. Sarah C. Schmidt and Charles W. Myers, both of Indianapolis. Miss Alley, whose bequest amounted to $15,000, was employed by the New York Central Railroad for many years in Indianapolis and Detroit, and she was greatly interested in the treatment of the child victims of infantile paralysis.

Prior to her death in 1941, Mrs. Schmidt made a direct bequest of $500 to the Riley Memorial Association and her will left her estate amounting to $12,000 to the hospital.

The hospital received the lifetime savings of Mr. Myers, amounting to $12,000, which were bequeathed subject to a life estate to a niece, Mrs. Louise Shaughnessy, of Indianapolis, who died a year ago.

The three donors will be honored with memorial tablets in the hospital lobby.

In accepting the bequests, Hugh McK. Landon, president of the board of governors of the Riley Memorial Association, said: "These three public-spirited citizens have indeed provided a noble heritage for many of our afflicted children. We of the association and the university welcome this assistance and are deeply grateful for it."

Two appointments to the staff of the Indiana University Medical Center in Indianapolis, Max M. Sappenfield, of Indianapolis, as personnel director, and Paul D. Jackson, of Bloomington, as superin-

tendent of buildings and grounds, were announced by Ward G. Biddle, vice-president and treasurer of the University.

The two new appointees, it was explained by Vice-President Biddle, will work under the heads of their corresponding divisions in Bloomintgon, thereby serving to coördinate operations on the University's campuses at Indianapolis and Bloomington.

Mr. Jackson, who is a graduate in civil engineering of Purdue University, has been assistant to H. E. Pearson, superintendent of buildings and grounds on the Bloomington campus since 1939. He is a native of Bedford where he served as assistant and chief city engineer and engineering superintendent of the city waterworks.

A member of the staff of the State Department of Public Welfare since 1936, Mr. Sappenfield is a native of Bicknell and a graduate of Indiana University with a Ph.D. degree in public administration from the University of Illinois. Prior to his association with the state welfare department he was assistant to the dean of men at Indiana University, research assistant and assistant secretary of the Governor's Committee on Governmental Economy, and assistant to the president of Washington State College, Pullman, Washington.

The appointment of Dr. Frank C. Hughes, of Indianapolis, as full-time professor of prosthetic dentistry, and the addition of four new men to the instructional staff of the Indiana University School of Dentistry has been announced by Dean William H. Crawford.

The new faculty members are: Dr. Robert H. Derry, of the faculty of the Medical College of Virginia, appointed as assistant professor of prosthetic dentistry; Dr. Henry M. Swenson, graduate of the University of Illinois School of Dentistry, instructor in the departments of histology, pathology and oral diagnosis; Dr. James G. Walker, recently of Johns Hopkins University, instructor in oral surgery, and Dr. Vance J. Vlk, graduate of the Chicago College of Dental Surgery and recently of Forsythe Institute, Boston, instructor in operative dentistry.

Dr. Hughes has been a member of the faculty of the Indiana University School of Dentistry and its predecessor institution, the Indiana Dental College, since 1921, and since 1936 he has been professor of prosthetic dentistry on a half-time basis. He will now devote his full time to teaching and administrative work at the dental school.

Society Reports

Randolph County Medical Society members met at the Beeson Club House, at Winchester, on June fourteenth. Dr. J. S. Robison, of Winchester, was the speaker, his subject being "Urinary Calculi." Nine members were present.

LaPorte County Medical Society members held a meeting at the Rumley Hotel, at LaPorte, on June seventeenth. Dr. Louis Sandoz, of South Bend, spoke on "Treatment of Common Skin Diseases." Nineteen members were in attendance at this meeting.

Greene County Medical Society members met at the Freeman Greene County Hospital, at Linton, on June seventeenth. A general discussion was held on current medical problems and interesting cases were presented. Eight members were present at this meeting.

Shelby County Medical Society members held their annual picnic at Tanglewood, the summer home of Dr. and Mrs. P. R. Tindall, on June ninth.

Fayette-Franklin County Medical Society members held a dinner meeting at Brookville on June eighth. It was their final meeting until September, and the members' wives were guests. Nine members were present at the meeting.

Floyd County Medical Society members held a special dinner meeting at the Frances Cafeteria in New Albany on June twenty-fourth. The guests of honor were Major Parvin Davis, who is stationed at Ancon, Panama Canal Zone, and Major William H. Garner, from Camp Breckenridge, Kentucky. The older members of the group told of their experiences in World War I and compared notes with the younger doctors on their war experiences. Seventeen members were in attendance at this meeting.

WOMAN'S AUXILIARY to the Indiana State Medical Association

President—Mrs. Arnold H. Duemling, Fort Wayne
President-elect—Mrs. James W. Baxter, Jr., New Albany
Corresponding Secretary—Mrs. E. M. VanBuskirk, Fort Wayne
Treasurer—Mrs. C. E. Monk, Kendallville

We invite all members of The Woman's Auxiliary to attend the State Convention of the Indiana State Medical Association, to be held in Indianapolis, September 28, 29 and 30, 1943.

ALLEN COUNTY

The Woman's Auxiliary to the Allen County Medical Society has accomplished much during the past year. The following is an account of what the members have done.

Nearly one hundred hours of work have gone into the first-aid map of Fort Wayne being made as a Red Cross project by the members of the Allen County Auxiliary. Nearing completion but still unfinished, the big map will form a record of first aiders throughout Fort Wayne. Pins mark the homes of all persons trained in first aid and indicate the amount of training each has had. First aid stations also are marked. When completed, the map will give an at-a-glance picture valuable in routine work and invaluable in an emergency.

Mrs. Noah Zehr has directed the work of making the map, aided chiefly by the Mesdames H. W. Garton, J. R. Adams, J. C. Wallace, W. B. Rice, John E. Conley, William F. Gessler, Lawrence Shinabery, Eugene Bulson and Donald Schafer. Mrs. N. L. Salon alone has made a similar map for the county.

Nearly three-fourths of the members of the auxiliary helped in some way with the project. In preparation for making the map, Mrs. Harry Harvey mimeographed between five hundred and six hundred cards to send out to persons with First Aid training.

The maps are not the auxiliary's only Red Cross project, however, during the club year 1942-1943, which ended in March, for 65 of the 124 members gave 8,036 hours of service to the Red Cross, sewing, knitting, making dressings, typing, filing, teaching, supervising, as first aid assistants, home nurses, canteen and Motor Corps workers and staff assistants. Before that ten members rolled up a total of 720 hours, working every day for two weeks.

For the blood donor service, which was set up by the Red Cross recently, the auxiliary recruited a permanent staff of twelve registered nurses and twenty substitutes to serve without pay during the six-day monthly visits of the mobile blood drawing units. About half of the number are members of the auxiliary.

Members of the group also have contributed during the year a total of 7,215 hours to Civilian Defense and 24,097 hours to war emergency service of other sorts, including work in enlistment booths, nursing and time at the service clubs. Sixteen members are working in their doctor husbands' offices to release a nurse for more active duty, and they have totalled 17,756 hours in that period. One member, Mrs. Nelson Prentiss, has 2,000 hours of service to her credit, given in connection with entertainments at the Army camps here.

The auxiliary brings to Fort Wayne each year one or two speakers on health subjects, and its members participate in the work of civic groups, fourteen heading civic clubs and fifty-four serving as board members. Husbands of thirty-nine members are in the U. S. service.

Books

BOOKS RECEIVED

PICTORIAL HANDBOOK OF FRACTURE TREATMENT. By Edward L. Compere, M.D., Associate Professor of Surgery, Northwestern University Medical School, and Sam W. Banks, M.D., Associate in Surgery, Northwestern University Medical School. 351 pages, with 171 illustrations. Cloth. Price $4.25. The Year Book Publishers, Inc., Chicago, 1943.

THE CONQUEST OF BACTERIA—From Salvarsan to Sulphapyridine. Edited by F. Sherwood Taylor. 178 pages. Illustrated. Cloth. Price $2.00. The Philosophical Library and Alliance Book Corporation, New York, 1942.

The Conquest of Bacteria gives a brief history of chemotherapy that can be read in a few hours. It was written primarily for the layman, but the professional person may find in it bits of information that he has forgotten or missed in his studies.

The main subject is introduced by a chapter on "Bacteria and Disease" followed by one on the "Body's Defenses." The "Development of Drugs" gives an elementary history of the subject in a short chapter, which is followed by a history of chemotherapy and a discussion of the sulfanilamide group of drugs.

The author emphasizes the need for medical research, particularly in the field of chemotherapy, and pleads for the public to awaken to the need of more research to be carried out by public institutions.

The book is well printed on good paper, but has an unusual number of typographical errors which would be obvious to the professional person and a few of which might be confusing to the layman such as, "middle-age disease" for middle-ear disease. A pleasing feature of the book is that although it is not dull, there is no attempt on the part of the author to be clever, which is a fault of some of the recent books on science for the layman. It can be recommended to the interested patient.

EDITH HAYNES, Ph.D.

A HANDBOOK OF MEDICAL LIBRARY PRACTICE: including annotated bibliographical guides to the literature and history of the medical and allied sciences. Edited by Janet Doe, assistant librarian at the New York Academy of Medicine. 609 Pages. Cloth. Price, $5.00. American Library Association, Chicago, 1943.

The *Handbook* is a manual obviously written for medical librarians, but readers as well will find it

invaluable: doctors interested in the history of medicine; medical authors preparing to write papers; or students who wish to learn the use of the library. The two guides to the medical literature are the list of books accompanying Chapter VII on "Rare Books and the History of Medicine" and Chapter VIII on "Reference Work." It is well outlined and excellently printed and bound. This practical book represents a comprehensive study of medical library administration, selection and ordering of books and periodicals, cataloging, subject headings, rare books and the history of medicine. The book is based on a preliminary manuscript prepared by Miss M. Irene Jones of the Detroit Public Library. Around the nucleus of this manuscript the Medical Library Association "Committee on a Library Handbook" built its manual, each member contributing a chapter on his specialty in medical library practice. All these features make the manual unique, and the correlation of so vast an amount of research should be of inestimable value to the medical librarian as well as the busy physician, and it is recommended that a copy of this book be placed in every medical library.

REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY. Issued under the direction and supervision of the Council on Pharmacy and Chemistry of the American Medical Association. Cloth. Price, $1.00. Pp. 207. Chicago: American Medical Association, 1943.

Through the years the size of this volume has grown with the increased work of the Council on Pharmacy and Chemistry until the present edition has the same number of pages as the book published in 1908, which covered the Council's first four years of activity. Some of the functions of this group are well known, but a more thorough understanding of the Council's scope may be gained from the annual reprint. This volume epitomizes that phase of the Council's work which may be said to be collateral to the "acceptance" of drugs—the informative consideration of current medical problems in the interest of rational therapeutics. It contains reports of studies by private investigators which were originally published in THE JOURNAL under the sponsorship of the Council, such as preliminary discussions of new developments in therapeutics and timely articles on the status of recognized agents as well as reports of omission or rejection of products from "New and Nonofficial Remedies." It also offers a record of current decisions on matters of Council policy.

Several of the reports are of particular interest for various branches of medical science: the use of bulk ether in anesthesia, the absorption of surgical gut (catgut), the higher types of antipneumococcus rabbit serum, the surgical and medical treatment of animals with experimental hypertension, and the status of racemic epinephrine solutions for oral administration. The reports in this small compact volume represent expert medical consensus and are proffered to aid in the consideration of the value of therapeutic agents.

NEW AND NONOFFICIAL REMEDIES, 1943, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1943. Cloth. Price, postpaid, $1.50. Pp. 772. Chicago: American Medical Association, 1943.

The current volume of "New and Nonofficial Remedies" continues, with minor improvements, the convenient and informative system of classification adopted for the 1942 volume. The terminology of the official drugs has been revised to conform to the U.S.P. XII and the N.F. VII. One notes that the valuable bibliographic index now appears on white instead of "India Tint" paper, a wartime necessity no doubt. This index appears before the general index which is now more properly placed at the end of the book. To one accustomed to the old format of "New and Nonofficial Remedies" the new arrangement appears at first somewhat awkward but with a little use the wisdom and convenience of the changes become more and more apparent.

Textual changes and revisions do not appear to be as numerous as in some previous editions. The chapter, "Digitalis and Digitalis-like Principles and Preparations," has been extensively and somewhat radically revised to keep pace with the changing attitude toward this drug. It is understood that in this revision the Council had the aid of the foremost digitalis authorities, pharmacologists and clinicians alike. Other revisions have been made obviously to keep the book up to date with medical knowledge. To cite a specific revision indicating the increasing skepticism of the Council concerning a drug, it is interesting to contrast the following sentence in the 1942 general article on Chaulmoogra Derivatives, "The therapeutic properties of chaulmoogra oil appear to be due to these optically active unsaturated fatty acids of the chaulmoogric series," which in the 1943 edition reads "Any therapeutic properties chaulmoogra oil may possess would appear to be due to these optically active unsaturated fatty acids of the chaulmoogric series."

No such spectacular new additions as the appearance in a previous volume of the sulfonamides is to be noted. Among the more noteworthy of the new additions are Nikethamide, the central nervous system stimulant which was first introduced as Coramine; Diethylstilbestrol, the synthetic estrogen; Trichinella Extract for the diagnosis of trichinosis; and Zephiran Chloride, a mixture of alkyl dimethyl benzyl ammonium chlorides, an interesting new anti-infective agent.

No one can examine the successive volumes of "New and Nonofficial Remedies" without increasing his profound respect for the faithful and unselfish work of the Council on Pharmacy and Chemistry in the cause of rational therapeutics. Each volume represents a progressive milestone on the road of medical science.

ABSTRACT

STUDY SHOWS IMPROVED DESIGN MAY MAKE CARS AND PLANES SAFER

A mechanical analysis of seven cases in which human beings survived free falls from heights of fifty to one hundred and fifty feet leads Hugh DeHaven, of the Department of Physiology, Cornell University Medical College, New York, to declare in the current issue of *War Medicine* that the fact that these survivals occurred when the necessary factors were accidentally contributed indicates the possibilities of increasing survivals and reducing injuries from automobile and airplane accidents by structural alterations in design that might be introduced. *War Medicine* is published by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council.

"The human body," he concludes, "can tolerate and expend a force of two hundred times the force of gravity for brief intervals.

"It is reasonable to assume that structural provisions to reduce impact and distribute pressure can enhance survival and modify injury within wide limits in aircraft and automobile accidents."

Explaining the purpose of his paper, Mr. DeHaven says: "During the interval of velocity change in aircraft and automobile accidents many typical crash injuries are caused by structures and objects which can be altered in placement or design so as to modify the large number of severe and constantly recurring pat-

(Continued on page xxix)

terns of injury in these accidents. In order conscientiously to approach some of the engineering problems encountered in reduction of the potential injury hazards of windshield structures, seats, instrument panels, safety belts, etc., it was necessary to have some understanding of the limits of mechanical strength of the human body.

"The objective in studying the physiologic results of rapid deceleration in the following instances of extraordinary survival—after free fall and impact with relatively solid structures—was to establish a working knowledge of the force and tolerance limits of the body. On the basis of these data certain engineering improvements can be considered for aircraft and automotive design.

"Loss of pilots through injury due to the increased landing speeds of military planes has become more and more frequent; this loss and the ever present toll by accident in the automotive field are matters of grave national concern. Injuries in these fields are mechanical results stemming from localized pressures induced by force and applied to the body through the medium of structure. It is an axiom in the mechanical arts that modification of cause will change results, but the nature and the degree of structural alteration to modify injury to human beings effectively depend on the reactions of the body to abrupt pressure and its distribution. The strength of human anatomic structure and its tolerance of pressure increase are centrally important elements in any proposed increase of safety factors through engineering effort.

"Obviously, if the body could tolerate pressure within only narrow limits, few improvements would be worth consideration, since the force and resulting pressure of a severe crash are at best formidable. Evidence, on the other hand, that the body can tolerate the force of an extreme crash—without injury—would indicate that (1) extreme force within limits can be harmless to the body; (2) structural environment is the dominant cause of injury; (3) mechanical structure, at present responsible for recurring injury, can be altered to eliminate or greatly modify many causes and results of mechanical injury, and (4) the greater the evidence of body tolerance of force and pressure, the wider the possibility for considering engineering improvements. . . ."

Mr. DeHaven points out that evidence of the extreme limits at which the body can tolerate force cannot be obtained in laboratory tests nor gained satisfactorily from most aircraft and automobile accidents. Estimation of the exact speed of a crash is difficult under most conditions, as is the determination of other essential factors.

"With the thought of overcoming many of these difficulties," Mr. DeHaven says, "and in order to observe physiologic reactions to force under more simple conditions, a study of cases of free fall was undertaken. In several of the cases outlined here speed of fall, striking position, deceleration and relation of resultant injuries to structure could be determined with great precision. . . .

"The material is presented with the hope that additional instances of force survival may be closely observed and recorded in order to further an understanding of the strength of the body and the type of structure, position, etc., contributing to force survival.

"It is, of course, obvious that speed, or height of fall, is not in itself injurious. Also a moderate change of velocity, such as occurs after a ten story fall into a fire net or onto an awning need not result in injury, but a high rate of change of velocity, such as occurs after a ten story fall onto concrete, is another matter. Between these two extremes lies important evidence of physiologic force tolerance. . . ."

He explains that in using the expression "free fall" he means a fall free of any obstruction other than that

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encountered at its termination. He cites the following 7 cases in which the victim of the fall survived.

A woman aged 42, 5 feet 2 inches tall and weighing 125 pounds, jumped from a sixth floor and fell 55 feet onto fairly well packed earth in a garden plot, landing on the left side and back. The deceleration distance, i. e., the distance traveled by the body from the time its downward movement began to be reduced by contact with an object until it came to a complete halt, was about 4 inches as indicated by marks of the body in the earth. At the time the body struck the ground it was traveling at a velocity of 54 feet per second or 37 miles per hour. There was no evidence of material injuries or shock and no loss of consciousness. The superintendent of the building reached the victim immediately after she struck the ground. She raised herself on her left elbow and remarked: "Six stories and not hurt."

In case 2, a woman aged 27, 5 feet 3 inches tall and weighing 120 pounds jumped from a seventh floor window and fell 66 feet onto a wooden roof, landing head first with progressive contact of the shoulders and the back. This woman broke through a roof of ¾ inch pine boards which were supported on 6 by 2 inch beams 16 inches apart and landed lightly on the ceiling below. Velocity at contact was 40 miles per hour. A hole approximately 16 by 16.5 inches was sheared in the roof by the force of the fall. Three of the 6 by 2 inch beams were broken. The only head injury was a lacerated scalp. There were abrasions over a portion of the spine and a fracture of one of the vertebrae. Commenting on this case, Mr. DeHaven says that "The fall was first known to have occurred when the woman appeared at an attic door and asked for assistance. She sat up in bed at the hospital later in the day. It is difficult to reconcile the structural damage to the beams with the absence of greater bodily injury in this case."

In the third case a woman aged 36, 5 feet 4 inches tall and weighing an estimated 115 pounds jumped from an eighth floor and fell 72 feet onto a fence, face downward. Velocity at contact was 44 miles per hour. There was no evidence of material injury. She landed "jackknifed" over the fence, tumbled to the ground, got up and walked to a nearby clinic for first aid.

A rapid, uneventful recovery was made by another woman after she had jumped from a ninth floor, falling 74 feet onto an iron bar, metal screens, a skylight of wired glass and a metal lath ceiling. She landed face downward, prone. The velocity at contact was 45 miles per hour, at which speed she struck an iron bar with her chest, making a bend 13 inches deep in the bar. She had minor injuries to the head from the screen wires and fractures of the fourth, fifth and sixth rib on the right side.

A fractured rib on the right side and a fractured right wrist were all the injuries suffered by another woman who jumped from a tenth story window, falling 93 feet into a garden where the earth had been freshly turned. Velocity at contact was 50 miles per hour. She landed on her back. She was released from the hospital twelve days later.

A man, aged 43, fell 108 feet from a tenth story window and landed on the hood and fenders of an automobile, face downward. Velocity at contact was 52 miles per hour. He suffered a depressed frontal skull fracture but the immediate cause of this injury was not determined because he had bounced from the car to the pavement. He survived and is now in good health.

In case 7 a man jumped from the roof of a fourteen story building, falling 146 feet onto the top and rear of the deck of a coupe and landing partly on his back. Velocity at contact was 59 miles per hour. He fractured his left elbow, his left arm, his left shoulder blade, the seventh and eighth dorsal vertebra and his hip. He was conscious and there was evidence of some internal injury. There were no head or chest injuries. He returned to work two months later.

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PRESIDENT'S ADDRESS*

CARL H. McCASKEY, M.D.
INDIANAPOLIS

American Medicine has responded wholeheartedly and in a voluntary manner in the fight for freedom in which our country is participating. We feel that such a response was to be expected from our profession, and it is only fitting that we should thank each and every one of our members who enlisted in the Medical Corps of the armed forces for the valiant part he is playing in this crisis. Our service flag at the present time contains over 53,000 stars.

In keeping with the previous statements it is appropriate for the Ninth Naval District to join the Indiana State Medical Association in presenting the program which has been prepared by our Program Committee.

We wish especially to thank Admiral Downes and his staff at the Great Lakes Naval Training Station, as well as the naval officers who are located in Indiana, for the part they have taken in this program. Admiral McIntyre, surgeon general of the Navy, and his Medical Corps officers are to be congratulated for the fine and efficient organization they have in the Navy. This high standard of organization has been and is directly responsible for the low mortality rate which prevails in the naval forces. We therefore want them to know that we greatly appreciate the efforts of the Medical Corps of the Navy.

The medical profession has given of its membership until its hurts, but our country again has been called upon for six thousand additional physicians for the Medical Corps of the armed forces. We are confident that even though our profession will have to stand for a bit more pain, that forthwith the physicians who are needed will enlist in the Medical Corps. Indiana's quota, through the farsightedness of its Procurement and Assignment Committee, will be short only about sixty men, but had we not given 36 per cent over our original quota, it would be a much greater task to secure a larger number at this time. Although more than one-third of our physicians are in the armed forces, there have been very few places in our state where there has not been proper medical care. In all communities reporting that their population was not receiving adequate medical care, the condition was investigated and corrected. We wish to compliment the public for the tolerance it has shown in this problem, and for its willingness to drop from the deluxe type of medicine, to which it was accustomed, to the rationed type of service which is available.

In addition to caring for the ordinary illnesses of the public our physicians have also taken care of institutional medicine, such as mental hospitals, tuberculosis hospitals, veterans' hospitals, municipal hospitals, university hospitals, industrial medicine of the enormous war plants, health services in colleges and universities, and many large outpatient dispensaries.

Perhaps it is not necessary to call your attention to the change which is being offered by various outside groups to our present methods of medical practice, but we feel that some emphasis should be placed upon this subject. By whatever name it is called, insurance medicine, socialized medicine or governmental co-operative medicine, it is a method of practice which must come as a result of taxation, whether in a withholding type or direct in nature. If this change does come to this country as the result of some form of taxation, it will, no doubt, be politically controlled.

During the Seventy-eighth Congress approximately 230 bills were introduced which were of interest to the medical profession. A great number of these had to do with benefits for veterans of World War I or veterans of World War II, or with the contemplation of the construction of additional veterans' hospitals or domiciliary facilities.

MEDICAL BILLS IN HOPPER

Twenty-three House or Senate bills proposed benefits for the physically handicapped, and some

* Presented before the General Meeting of the Indiana State Medical Association, at Indianapolis, September 29, 1943.

eighteen bills pertained to the broadening Social Security Program, including, of course, the much-discussed Wagner-Murray-Dingell Bill, of which the following is a good illustration: This bill proposes to place the power of authority in the hands of one man, that is, the surgeon general of the Public Health Service. He would have the power (1) to hire doctors, and to establish rates of pay for all doctors; (2) to establish fee schedules for service; (3) to establish the qualifications for specialists; (4) to determine the number of individuals for whom any physician may provide service; and (5) to determine arbitrarily what hospital or clinics may provide service for patients.

The bill provides that about 25,000,000 persons would be added to the 37,000,000 now carrying Social Security cards, and provides for the moneys to be raised as follows:

a. Every employer shall pay a tax on wages paid to individuals up to $3,000 per year	6%
b. Each employee shall pay a tax on deducted earned income up to $3,000 per year	6%
Total from pay rolls	12%
c. Every self-employed individual shall pay a tax value of his services up to $3,000	7%
d. State, federal and municipal employees shall pay	3½%

We could go on and on discussing various items of this bill, but time will not permit; however, the items given will suffice to acquaint you with the possibilities if such a bill were to become a law. Other bills proposed include obstetric and pediatric care for the wives and infants of service men; rehabilitation of veterans and civilians disabled in industry; prevention of stream pollution; nurses' training programs; the construction of federal medical academies; the establishment of pharmacy and chiropody corps in the armed forces; a permanent Medical Corps in the Veterans' Administration; medical care for recipients of public assistance, as well as the extension of privileges to sectarian healers.

With this program of the Seventy-eighth Congress, is it any wonder that Indiana, along with many other states, at the June meeting of the House of Delegates of the American Medical Association clamored for an agency to be set up in Washington in order that we would be able to keep in close and intimate contact with legislative matters in Washington? Certainly not. Therefore, out of the various resolutions presented came the creation of a council to be selected by the Board of Trustees of the American Medical Association to establish an all-time office in Washington when necessary. Indiana thinks that the time for the establishment of this office is *now*.

Medical men who will return from military service will create a problem which will be as great, if not greater, than that of securing the entrance of these men into military service. What will be the program, and what organization should carry this out? We do not know, but to our way of thinking the same setup which enabled organized medicine to get these men into service is the one which would be of greatest value in rehabilitating them; namely, the Procurement and Assignment Service. This was the only federal agency directly concerned in maintaining a sufficient number of physicians for civilian practice, in carrying on medical education and in furnishing industrial medicine. When this has been accomplished the Procurement and Assignment Service has completed only one-half of its function. It should be the group to rehabilitate the men of the medical profession as they are mustered out of the armed forces.

The medical profession may well be proud of the fact that it has been the only group given, by directive of the President, the responsibility of maintaining service in civilian life and at the same time supplying the needs of the armed forces.

MEDICAL EDUCATION PROBLEMS

The medical schools should be praised for the fine job they are doing in spite of the fact that their active faculties have been reduced 50 per cent. Not only have their faculties been reduced, but they have taken on a 33⅓ per cent greater load than they carried heretofore, and they are doing a splendid piece of work.

When the draft age was reduced to eighteen years, something had to be done immediately about the source of material for medical students. The Army and Navy, in arranging for specialized collegiate training programs for pre-medical and medical students, has again increased the responsibility of the members of medical faculties.

One problem which is confronting medical schools is the manner in which pre-medical students are to be selected. At the Indiana University School of Medicine the procedure has not been determined, as far as we know. We understand how the pre-medical students are prepared for medical schools, but we do not know whether Indiana students will be kept at the Indiana University School of Medicine or whether they will be distributed to schools elsewhere. The Admissions Committee of a medical school should be the agency by which pre-medical students should be selected for medical schools, especially if medicine is to be kept on the high plane which we have had in the past. We trust that the present plan of selecting medical students will not be changed.

It has been arranged so that 80 per cent of the medical students who graduate from medical schools will be in the armed forces after one year's internship, at which time they will receive the rank of Lieutenant in the Medical Reserve Corps. The other 20 per cent are to be made up of women and the men who are physically unfit for military service and who will be retained for civilian practice. These, with the six to seven hundred who will be

returned from military service, will take care of the mortality rates of those remaining in civilian life, which is estimated to be 2,500.

In Indiana our medical school setup is ideal for keeping medicine on the plane as we have known it in the past. We have a few all-time faculty members in the various departments, but these are chiefly engaged in teaching basic science subjects, and there are only a few part-time men, so the majority of the faculty members are practitioners of medicine. These men really understand the medical problems of medical men, and practically all of them are good teachers in that most of them have been trained in some aspect of pedagogy. With this type of faculty membership we are much more likely to refrain from advocating a socio-economic type of medicine.

If there is one profession in which individualism exists, it is in medicine. Physicians, as a rule, are busy men who have built up their own private practice in a community and feel that they should devote their time to caring for this practice, and they more or less forget that their medical organization is battling for their rights. If each practitioner would give a certain portion of his time to the effort of promoting his medical organization in order that his best interests might be conserved, it would have a tremendous influence in helping to solve the so-called "regimentation of medicine." We call this to your attention in order that you may think the matter over and try to make a greater effort toward helping the medical organizations of which you are members.

Medicine at the present time is confronted with many challenges, and no doubt there will be a tremendous increase in these challenges as we come to the conclusion of the present crisis. We will then enter into a reconstruction period when our responsibilities and duties will be ever increasing. It is up to the medical profession, as suggested in this discussion, to prepare to meet these challenges, especially the rehabilitation of physicians who entered the country's service at a time when they had to make many sacrifices. The medical profession never has failed to do this, and at the same time the public has never suffered from its actions.

Finally, all that medicine wants is to be left severely alone to solve its own problems.

VAGINAL HYSTERECTOMY: INDICATIONS AND A METHOD*

JOHN M. WAUGH, M.D.†
ROCHESTER, MINNESOTA

It is imperative for the gynecologic surgeon or the general surgeon doing gynecologic surgery to be well versed in both the abdominal and the vaginal route of performing hysterectomy. These methods are not antagonistic, but are very definitely supplementary. Certain patients are advantageously operated on by one method, whereas the other method is indicated for another group. If a surgeon has only one method at his disposal he is frequently prejudiced in favor of this method and all patients are treated in the same manner, no doubt in certain instances with increased risk or an inferior end result, whereas with both methods at his disposal he can weigh the advantages of each and choose that best suited for the individual patient.

Abdominal hysterectomy has become such a safe procedure in recent years, with a mortality rate of 1 to 2 per cent for the total operation, that many of us have forgotten that the vaginal route is even safer, with a mortality rate of 0.3 per cent and less, for the same factors which have lowered the mortality rate of the abdominal operation likewise operate to lower the mortality rate of the vaginal procedure.

The advantages of vaginal hysterectomy over abdominal, when compared under identical conditions, are as follows:

1. It is practically an extraperitoneal operation. For this reason there is little likelihood of trauma to the peritoneal surfaces, both visceral and parietal, so that there is less chance of peritonitis or adhesions. "Gas pains" and ileus are observed more rarely.
2. The incidence of thrombophlebitis and pulmonary emboli is less, probably because there is no trauma of the large pelvic veins.
3. Pulmonary complications, such as atelectasis and pneumonia, are found more infrequently, for there is no abdominal incision to splint the abdomen and thus to interfere with the excursion of the diaphragm.
4. The incidence of shock is less because there is a minimum of trauma and loss of blood, and the time of operation is shorter.
5. The entire uterus is removed, thus obviating any hazard resulting from a preserved cervix.
6. Since there is no abdominal incision, the incidence of postoperative hernia, infection of the wound or painful wound is nil. The occasional case in which vaginal hernia develops, in my experience, has been one in which the patient was

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† Division of Surgery, Mayo Clinic, Rochester, Minnesota.

operated on for prolapse. I have never seen vaginal hernia develop as a late complication when there was no prolapse demonstrable at the time of the original operation. I am satisfied that the incidence of prolapse of the vault and cervix after abdominal subtotal hysterectomy is greater than the incidence of vaginal hernia following vaginal hysterectomy when both operations were carried out for uterine pathologic conditions other than prolapse originally. Of course, if prolapse is present the end results even more definitely favor the vaginal method.

7. If correction of urinary incontinence, cystocele, rectocele and prolapse is contemplated, along with hysterectomy, certainly by all odds the vaginal approach would seem most logical, as the risk of vaginal hysterectomy and repair is a fraction of the risk of abdominal hysterectomy alone and infinitely less than that of a combined vaginal and abdominal operation in one or two stages. It has been my experience that frequently patients in need of repair work are advised to defer it if abdominal hysterectomy is done, and as a consequence they put it off indefinitely, often until the condition reaches an alarming degree, whereas the repair work would have been done almost as a matter of routine if the hysterectomy had been by the vaginal route.

8. The foregoing advantages result in lowered morbidity and mortality rates. My experience has been that the hospitalization required by a patient with a simple vaginal hysterectomy without repair is approximately half that required by one who undergoes total abdominal hysterectomy.

9. Certain "poor risk" patients who do not tolerate abdominal procedures well can safely undergo hysterectomy by the vaginal route. Obesity, age and cardiovascular disease, even if present in a marked degree, rarely contraindicate vaginal hysterectomy.

10. Postoperative discomfort is minimal, and patients submitted to vaginal hysterectomy after previous pelvic laparotomy are quick to notice the fact that there is less pain after the vaginal hysterectomy than after the laparotomy.

INDICATIONS

Menorrhagia with anemia due to small fibroids or intrauterine polypi is the most common indication for vaginal hysterectomy on our service at the present time. Menorrhagia due to ovarian dysfunction with anemia which is not amenable to curettage and medical measures is another common indication. Both these conditions were formerly treated frequently with curettage followed by the artificial production of the menopause by means of radium or roentgen therapy in women more than forty years of age. In younger women where it was desirable to preserve the reproductive function a small dose of radium (400 mgh.) was advised. The latter is effective in about 50 per cent of cases and is used occasionally, when all other measures fail, before resorting to vaginal hysterectomy, with the patient's appreciation that the latter may be necessary. Although we still occasionally use radium and roentgen therapy for the production of artificial menopause, most of these patients are advised to submit to vaginal hysterectomy because: (1) it has been shown that radium is only about 90 per cent effective in stopping the bleeding and about 10 per cent of patients will later come to hysterectomy in spite of radium; (2) radium is contraindicated if there has been a history of pelvic infection; (3) the patient may refuse radium treatment because the laity frequently associate it with the treatment of cancer or rightfully wish to avoid menopausal symptoms which follow it; (4) vaginal hysterectomy permits inspection of the adnexa and their removal if necessary, but more often their preservation, which is a reasonable desire of most women; (5) repair of a relaxed outlet or cautery or amputation of the cervix may be indicated, and under these circumstances there is little added risk to vaginal hysterectomy; (6) it is still possible for malignant lesions to develop in later years in a uterus subjected to radium and roentgen therapy, whereas with removal of the uterus two sites in which cancer is encountered frequently, namely the uterine cervix and body, are eliminated; (7) paradoxically, the risk of vaginal hysterectomy has been less in recent years than the risk of a menopausal dose of radium.

Prolapse of varying degrees is another common indication for vaginal hysterectomy. In minor degrees of prolapse, especially those associated with elongation of the cervix, the Manchester and interposition operations have proved satisfactory, in the main, but are not as utilizable or as effective in all degrees of prolapse as vaginal hysterectomy. Most of these patients are well past the menopause, and if there is to be any surgical procedure directed at the uterus, it is better removed. Vaginal hysterectomy permits recognition and excision of any associated enterocele sac as well as the inverted vaginal vault which, if not excised as any hernial sac, probably serves as a start for a postoperative vaginal hernia. The adnexa can be readily inspected and removed if necessary.

Dysmenorrhea, requiring hysterectomy for relief, is a fairly common indication for the vaginal operation. When all conservative measures fail and the patient is no longer concerned over the preservation of the reproductive organs, vaginal hysterectomy offers complete relief with a minimal risk.

Extensive chronic cervicitis occasionally is not amenable to conservative measures and even amputation in some cases will not completely eradicate the leukorrhea which is present. This is possibly due to the fact that severe cervicitis occasionally is accompanied by chronic metritis and parametritis with a boggy, subinvoluted type of uterus which requires hysterectomy for relief, and this

can be accomplished vaginally with less risk than abdominally.

It is my feeling that as a general principle vaginal hysterectomy should be reserved for uteri of such a size that they can be delivered vaginally without morcellation. If it is necessary to morcellate a uterus to remove it vaginally, there is more bleeding, more chance of infection, and a remote possibility of cutting into and disseminating an unrecognized malignant lesion, all of which probably outweigh the advantages of this method for extending the indications for vaginal hysterectomy. Approximately 1 per cent of fibroids this size are sarcomatous and fairly commonly a small early epithelioma of the cervix or adenocarcinoma of the body of the uterus is overlooked in spite of preliminary biopsy and curettage, only to be recognized by the pathologist after its removal. Certainly this risk of malignancy alone is greater than the risk of total abdominal hysterectomy in cases involving uteri large enough to require morcellation, and the advisable procedure is the abdominal route unless other factors present, such as poor general condition of the patient, outweigh this.

By careful preoperative bimanual examination, both with and without anesthesia, and a comparison of the size of the uterus made with the amount of relaxation of the pelvic floor, one can practically invariably determine whether or not it is possible to accomplish vaginal hysterectomy. In nulliparous and virginous patients usually a uterus two to three times the normal size can be delivered without morcellation or episiotomy. In multiparous patients with considerable relaxation, a fair sized fibroid uterus can be delivered readily. To some extent it depends on the position, size and shape of the fibroids and whether they are pedunculated or intraligamentous. The largest fibroid uterus I have removed vaginally without morcellation weighed 850 Gm. Naturally the patient had considerable relaxation of the outlet to permit extraction of an organ ten times the normal multiparous uterus. Certainly, if during an attempt at vaginal hysterectomy it is found unwise or not feasible to continue from below, it is no calamity to complete the vaginal part of the procedure and remove the uterus abdominally, although as yet I have never found this necessary.

Paradoxically, vaginal hysterectomy is easier in virginous and nulliparous patients than in the multiparous, because frequently in the latter there has been more or less fixation of the vault due to cervical tears and infection, whereas in the former the vault is more mobile and the cervix can usually be pulled down readily to the vaginal introitus, which facilitates the incision and early part of the mobilization of the uterus.

CONTRAINDICATIONS

If a malignant lesion is present in the body of the uterus, as a general rule total abdominal panhysterectomy is preferable to vaginal hysterectomy. If a malignant lesion is present in the cervix, radium therapy is usually preferable. In certain aged and poor risk patients with carcinoma of the uterine body, where abdominal hysterectomy would carry unwarranted risk, not infrequently vaginal hysterectomy will be well tolerated and the chance for permanent cure will be greater than if radium were used. The oldest patient on whom I have performed vaginal hysterectomy was a woman of eighty years who had a carcinoma of the body of the uterus. She made an uneventful convalescence and has no evidence of recurrence at the time of writing, two years after the operation.

Adnexal disease of a minimal character can be eradicated satisfactorily during the process of vaginal hysterectomy. If it produces a mass of any size, however, as a rule it can better be disposed of abdominally, as proper peritonealization of the adnexal areas is more satisfactorily accomplished from above. Small ovarian cysts, endometriosis, hydrosalpinx, and chronic salpingo-oophoritis can usually be dealt with satisfactorily; however, if an examination with the patient under anesthesia the organs are not mobile and seem fixed or of a size incommensurate with the outlet, then the wise and conservative plan is to utilize the abdominal approach.

As mentioned previously, a large uterus is a contraindication to vaginal hysterectomy, as for the reasons cited the morcellation required for its delivery below is more hazardous in the patient of average risk than abdominal hysterectomy.

Previous pelvic operations may interfere at times with the execution of vaginal hysterectomy. If ventral fixation of the uterus has been done previously, as a rule the abdominal wall can be cut free from the fundus vaginally, but occasionally this cannot be accomplished and one can do a Manchester operation, amputating the elongated cervix. I recently removed an atrophic, prolapsed uterus vaginally after ventral fixation which was nine inches (23 cm.) long. Usually other pelvic procedures, such as internal shortening or salpingo-oophorectomy, do not interfere and vaginal hysterectomy is readily accomplished. Certainly one is "on guard" when confronted with previous pelvic operations and the pros and cons of vaginal hysterectomy are more heavily weighed under these circumstances.

In general, it can be well stated that all uteri are best removed vaginally if the organ can be delivered without morcellation and there is no evidence of malignant lesion or adnexal disease of a considerable degree.

TECHNIC

The following technic was patterned after and conforms as closely as possible to the technic which is used for total abdominal hysterectomy by Doctor Masson at the Mayo Clinic and which has been found to be so uniformly satisfactory over a period of many years. It is so simple and direct that it probably was described long ago, but I

have been unable to find such a description in the literature, neither have I seen anyone use this identical technic. Its advantages are that the peritoneum is closed under direct vision and the vault is supported by the round ligaments, cardinal and uterosacral ligaments, thus tending to give good depth and support to the vault, which is closed by suture and usually heals by primary intention rather than granulation.

Either general or spinal anesthesia may be used, but most women prefer the former. A circular incision is made at the cervicovaginal juncture unless there is considerable prolapse, which may require removal or more of the vault of the vagina. The bladder is freed from the uterus and for a short distance from the anterior vaginal flap, so that this can later be safely closed without jeopardizing the bladder. The vaginal flaps are now elevated by pushing them back with the gauzed finger as steady traction is made on the cervix toward the vaginal outlet. The bladder is elevated in the same manner and laterally is pushed up, thus carrying the ureter upward and laterally from the point where the uterine vessels will be tied.

If there is associated cystocele or urinary incontinence, the incision is lengthened on the anterior vaginal wall to within 1 cm. of the external urethral orifice and the redundant vaginal mucosa is excised. The pubocervical fascia is dissected from the vaginal flaps and then the two lateral portions of this fascia are approximated in the midline below the bladder with interrupted silk sutures. As a rule, one obtains better exposure for repair of the cystocele if it is done before removing the uterus; however, if the uterus is large and might tear out some of the sutures as it is delivered, it is best to delay the repair until after the uterus has been removed.

Proceeding with the hysterectomy, the cul-de-sac of Douglas is opened and the posterior surface of the uterus and peritoneum explored with the finger to rule out any adherent intestine. Using a curved forceps, preferably of the Heaney type, the lower portion of the left broad ligament, including the uterosacral and cardinal ligament, is clamped, cut and immediately secured by means of a ligature placed with a needle, using No. 1 chromic catgut. One end of each ligature is left long to facilitate closure of the peritoneum and reconstruction of the vault. The next clamp is placed higher and includes the uterine vessels, and the third clamp controls the utero-ovarian anastomotic vessels, which course up the side of the uterus. Both are secured with suture ligatures. Now the right side of the uterus is dealt with similarly and the peritoneum is opened anteriorly at the vesical reflection. The uterus is now entirely free except for the horns. Delivering the fundus posteriorly, the round ligament, uterine end of the tube and utero-ovarian ligament are clamped, cut and ligated on either side. The adnexa are inspected and removed if indicated. Making gentle traction on the ends of all eight ligatures brings the peritoneum into view so that it can be closed under direct vision with a running suture approximating the vesical reflection of peritoneum to the posterior reflection in the cul-de-sac. This places all raw surfaces extraperitoneally.

The vault is next reconstructed and supported by closing the incision in the transverse axis. The most lateral suture in either angle of the vault is tied to the ligatures previously left long on the cardinal and uterosacral ligaments. This approximates the angles to their normal supporting structures. The next two more medial sutures on either side of the vault incorporate the corresponding round ligament. The round ligaments are then tied together in the midline and the vault is closed over the stumps, leaving them between the peritoneum above and the closed vagina below. If a cystocele was repaired, the portion of the incision running up to the urethra is closed so that after closure the tennis racket incision has assumed the appearance of an inverted T. If repair of the perineum is indicated, this is carried out last. A retention catheter is not used unless there has been a repair of a cystocele. Without repair work the patient is up in three days and usually leaves the hospital on the sixth day. With repair, the patient sits up in eight days and leaves the hospital on the fourteenth day unless residual urine requires longer hospitalization.

The immediate and late results of this technic have been very satisfactory. There is no greater tendency to postoperative vaginal bleeding than after total abdominal hysterectomy, and there has been no ureteral injury. The bladder is not as readily injured as in the abdominal procedure because it is easier to find the plane of cleavage between the uterus and the bladder when working vaginally than from above.

I have used this method of vaginal hysterectomy in about six hundred cases with two deaths, or a mortality rate of 0.3 per cent. About seven-eighths of the patients had, in addition to the vaginal hysterectomy, repair of cystocele and rectocele. Many of these have been re-examined months and years after operation, and the mobility and support of the vault have been very satisfactory.

SUMMARY

The advantages, indications, contraindications and a technic for vaginal hysterectomy are presented. It is emphasized that abdominal and vaginal hysterectomy supplement each other and the surgeon doing hysterectomy should be well acquainted with both methods if he is going to render his patient the optimum of present-day surgical skill.

Look to your health; and if you have it, praise God and value it next to a good conscience; for health is the second blessing that we mortals are capable of; a blessing that money can not buy.—*Izaak Walton.*

CONTROL OF TUBERCULOSIS IN INDUSTRY*

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The purpose of this paper is to define the interest of industrial management in pulmonary tuberculosis among employes and to describe some of the methods useful in the control of this condition among industrial groups.

In this discussion tuberculosis is considered to be of two types: industrial and non-industrial. The latter might also be called community tuberculosis Industrial tuberculosis, as used here, is adult or re-infection pulmonary tuberculosis, the origin of which is directly traceable to factors in work environment or the progress of which is promoted by such factors. Non-industrial or community tuberculosis is adult or re-infection pulmonary tuberculosis as the disease is traditionally understood. An employer has a moral obligation to eliminate the conditions which contribute to the first type, and frequently has a financial liability for the cases that occur among his employes; but he deals with community tuberculosis for the reason that he has a personal interest in the welfare of his workers.

Much was done to crystallize the concept of industrial tuberculosis at a symposium on the subject held at Saranac Laboratory in 1941. Dr. L. U. Gardner, director of the laboratory, on that occasion arranged a program of speakers whose experience covered a significant sample of American industry and whose interest in tuberculosis was well recognized. The papers were published as a single volume,[1] and were the basis of Gardner's subsequent comprehensive article on the subject.[2] Tuberculosis may be said, unquestionably, to be of industrial origin when the infection itself is contracted at work. "Nurses, physicians, and attendants of the sick, in institutions caring for tuberculosis patients, are considered to be exposed to an occupational hazard of infection,"[2] and in the state of New York they are eligible for compensation for the resulting disability. The public health statutes of the state of Indiana hold an employer liable for the disease in a factory worker when the condition results from exposure to a second and infectious worker, and when it is reasonably certain that the employer had knowledge of the condition of exposure. It is inconceivable that a present-day employer would place himself in the position of violating this law; and it would seem, therefore, that the law and its implied definition of industrial tuberculosis have no practical application.

The papers presented at the Saranac Laboratory symposium dealt with numerous factors of work environment which at one time or another have been thought to exert an unfavorable influence on the course of pulmonary tuberculosis. It was decided that silica dust was alone capable of such an effect. The exact nature of a silica dust exposure which can produce the effect is another subject and will undoubtedly be discussed by Dr. Gardner in his paper on silicosis in tomorrow's session of this meeting. The opinion and experience of the symposium speakers indicated that none of the following factors influences pulmonary tuberculosis one way or another: fatigue, moist heat, dry heat, the organic dusts of grain and tobacco, lead dusts in amounts capable of producing signs of absorption and symptoms of intoxication, irritant fumes and gases in concentrations that produce pulmonary inflammatory reactions, and mineral dusts other than free silica. Industrial tuberculosis, then, is a disease which is originally contracted at a place of work or, having been contracted either at work or elsewhere, is unfavorably influenced by an industrial exposure to free silica dust.

The control of industrial tuberculosis has two phases: engineering and medical. The engineering program seeks to eliminate harmful exposures of silica dust from the work environment. The methods for accomplishing this vary with the problem to be solved. They range in complexity from those which can be managed by the simplest of ventilation devices to those which tax the ingenuity of our best industrial hygiene engineers. When a silica dust hazard can not be managed by engineering methods, the exposed workers are to be afforded the protection of respirators approved by the United States Bureau of Mines. Applicants for jobs associated with a silica hazard should be examined for pulmonary tuberculosis. The presence of a lesion of the adult or reinfection type in an applicant should preclude employment regardless of its apparent activity or extent. Individuals who already work at such jobs should be examined periodically to determine whether new infections have developed. As will be pointed out later, these probably occur at all ages among most types of industrial workers. Cummings and his associates[3] showed that infections of tuberculosis are found with significantly greater frequency in progressive age classes among workers exposed to a silica

* Presented before Indiana's Industrial Health Conference, at Indianapolis, on February 25, 1943.

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[1] Gardner, Leroy U.: Tuberculosis in Industry, National Tuberculosis Association, New York, 1942.

[2] Gardner, L. U.: A Symposium on Tuberculosis in Industry held at the Saranac Laboratory, Saranac Lake, N. Y., in June 1941—A Resume, *J.A.M.A.*, **118**:642, (Feb. 21) 1942.

[3] Cummings, Donald E.; Downs, Robert N., and Berg, Melvin: Tuberculosis Lesions in Male Industrial Workers, *Am. Rev. Tuberc.*, **39**:439, (April) 1939.

hazard. No hard and fast rules can be made for the disposition of these new cases. Some may continue to work under medical supervision, while others need to be treated or transferred to a different occupation at once. Proper decisions can be arrived at only on the basis of past experience with a particular hazard.

The central activity of an industrial program for the control of community tuberculosis is case finding. The activity begins with a pre-employment examination which should include measures that will insure finding all cases among applicants. As was previously pointed out, this is particularly important with respect to applicants seeking employment associated with a possible silica hazard. The second opportunity for case finding presents itself at periodic health examinations of presumably well employes. Fairly complete examinations which reveal most of the cases of chronic illness, including tuberculosis, can be made at a reasonable cost. At least one such examination has been made of every employe at the plant with which the author is associated. Enough diagnoses were made of a variety of chronic illnesses to warrant considering the effort worth while. The program as originally conceived has had to be abandoned for the duration of the war, and there has been no opportunity to establish either the value of repeated examinations or the frequency with which they should be made.

Surveys of population groups usually show an increasing amount of adult or reinfection type of tuberculosis with increasing age classes. Thus, an analysis made by Cummings and his associates[3] showed the incidence among seventeen- to nineteen-year-old males employed or applying for work at a steel plant to be 1.55 per cent. There was a tendency to increase with each succeeding class of five years until an incidence of 11.36 per cent was reached for the class fifty-five to fifty-nine years of age. A similar pattern was found by Moffet and Clarke[4] in an analysis of cases among bituminous coal miners in an isolated community in eastern Kentucky. It was Cummings' belief that new infections could and did occur at all age periods. Sander[1] has expressed the opinion that the increased incidence in older individuals results from lesions contracted years ago when tuberculous infection was more common. The explanation would not be required for the Kentucky group of workers whose older individuals have at least as great an opportunity for infection in old age as they had in youth. Fellows,[1] who reported on the effectiveness of a control program which included yearly examinations of employes at the Metropolitan Life Insurance Company, gave the incidence of new cases in the group as gradually diminishing from 0.9 to 0.1 per cent per year. He stated further that new cases occur at all ages. A few known new cases have occurred at the plant with which the writer is associated, in men over forty years of age. They came to the attention of the medical staff because of the acute nature of the cases and not as a result of searching through a presumably well population. It seems that the evidence is in favor of the occurrence of new infections of pulmonary tuberculosis at any time during the working years of the life span. Case-finding programs should, therefore, not be pointed at any one age group. Sawyer[5] reported the reduction of clinically significant cases from 2.3 per cent of a pay roll group in 1921 to 0.5 per cent in 1938, and to 0.2 per cent in 1940. This, like Fellows' experience, is considered to have resulted from a thoroughgoing program of case finding, supervision and rehabilitation at the plant where the group is employed. The present author[6] reported the incidence of clinically significant cases to be 0.5 per cent in a large group of employes and applicants at a steel plant. It is recognized that these do not necessarily represent infections that began within a year of discovery, but the incidence of new cases in the average industrial group of the average metropolitan area must be greater than the present minimums in the plant populations supervised by Fellows and Sawyer, and a guess is hazarded that the value is near 0.5 per cent of a pay roll group. The frequency with which complete examinations are made for the purpose of searching out pulmonary tuberculosis in an industrial organization will be determined by the value placed on discovering this significant minimum of new infections.

The plant physician who is on the alert has opportunities for discovering cases outside of the formal routine of complete examinations. If he has a reputation for clinical competence, he will frequently be consulted by workmen in the plant for his opinion about symptoms which have been present for varying lengths of time. A good history and a careful physical examination may on such an occasion reveal the necessity for a chest x-ray study. Most of the large establishments require that workers who have been absent because of illness clear through the medical department before returning to work. Interviews and examinations at such times may again lead to special chest studies. Wishard[1] has pointed out the value of developing co-operation with practitioners outside the plant, and of encouraging them to refer workers to the plant medical department for a chest x-ray film whenever one is thought necessary.

A good case-finding program will employ as many of the established diagnostic procedures as is possible. These are: history-taking, physical examination, laboratory tests, and x-ray studies. History-taking has proved to be a procedure of little value when used in connection with routine

[4] Clarke, B. G., and Moffet, C. E.: Silicosis in Soft Coal Miners, *Jour. Ind. Hyg. & Tox.*, **23**:176, (May) 1941.

[5] Sawyer, W. A.: Control of Tuberculosis, *Ind. Med.*, **10**:221, (June) 1941.

[6] Kammer, A. G.: Fourth Symposium on Silicosis, B. E. Kuechle, Wausau, Wis., 1939.

health examinations. The author[7] previously reported an analysis of the relative values of various diagnostic procedures in the discovery of 653 cases of adult pulmonary tuberculosis in 15,000 consecutive routine health examinations. Of these, 138 cases were considered to be active or questionably active, i.e., subjects for sanatorium care and observation. Only 31, or 22 per cent, of the individuals so classified admitted symptoms of tuberculosis on direct questioning, while those with infections considered to be old were rarely able to recall having had symptoms that would suggest a previous infection. The absence of discoverable physical signs in cases of tuberculosis which are demonstrable by good roentgenograms is one of the truly distressing experiences of a diagnostician. Old and inactive infiltrations rarely present signs to the physician with average ability, being absent from nearly all cases in which there is minimal involvement and in most of those in which the infiltration is moderate in extent. Of the 138 cases of active and questionably active infections previously referred to, 28 (20 per cent) presented signs that would have aroused the suspicion of an examiner. Nearly all of these were individuals who also had symptoms, and the possibility needs to be considered that diagnostic acumen improves when one deals with sick people and deteriorates when apparently well individuals are being examined. It is likely in any event that industrial medical examiners who work at a moderately rapid pace searching for cases of pulmonary tuberculosis and who rely upon typical symptoms and signs of the disease for their diagnosis will miss nearly all instances of inactive lesions, and at least two-thirds of the cases that should have the benefit of sanatorium care and observation. This opinion is supported by data in Fellows' article.[1]

Real efficiency in the discovery of cases is to be had only with the routine use of some roentgenologic procedure. Fellows has found it practical to make fluoroscopic studies of all examinees, provided 14 x 17 films are made of doubtful and positive cases thus discovered. Sawyer routinely makes stereoroentgenograms of employes at the Eastman Kodak Company. Stereoroentgenograms were routinely made in more than 7,000 examinations at the steel works with which the present author is associated. Thereafter the procedure was changed to that of a single 14 x 17 x-ray film of each subject, followed by a sterescopic pair whenever necessary. Sander, whose experience in this field is extensive, relies on single 14 x 17 films. Fluorophotographic equipment which makes use of a 4 x 5 and 35 mm. film has been put into use by the Medical Corps of the armed services and by governmental health agencies. Siegal,[1] in his work at the New York State Department of Health, finds 4 x 5 films more satisfactory than the 35 mm. size. Experience with the new equipment is accumulating rapidly and in great volume, and it seems likely that 4 x 5 films, singly or in stereoscopic pairs, may some day supplant the use of 14 x 17 films in industrial case-finding programs.

Tuberculin tests have no practical value as a diagnostic procedure among industrial workers. In most communities the incidence of positive reactors approaches 100 per cent as progressively higher age classes are tested. The principal argument given for use of the procedure is that individuals with negative reactions do not need to be x-rayed. It is likely that the cost in wages for the time used in making the tests and following them would in many instances equal the money saved in films. On the other hand, the medical officer of a firm which operates the principal business, say a mine, in a small and isolated community may find skin tests to be very helpful. In such circumstances all school children should be tested periodically, and an effort should be made to discover the case at home which is responsible for the reaction in the child. That case may be in an employe, or may be the one which will some day be the source of a new infection in an employe.

The plant doctor is in an excellent position to take an active part in the supervision of cases of tuberculosis as they are discovered among employes. He should refer all cases, inactive as well as active, to the community's tuberculosis facility for at least a corroboration of diagnosis. If no public agency is available an attempt should be made to reach an agreement as to the diagnosis with the employe's personal physician. Three basic questions need to be settled in each case: (1) Is pulmonary tuberculosis present? (2) Is it inactive or active? (3) Is it infectious? As was previously noted, an employer in the state of Indiana is prohibited by law from knowingly giving employment to a worker with infectious tuberculosis. Besides this, the question of activity or inactivity in a lesion determines the need for treatment. This is a decision in which, for the sake of his continued good relations in the plant, the industrial physician should make use of the best opinion available to him. If it is decided that an individual has a lesion which is inactive and that he may continue to work, it is the plant physician who is best qualified to specify the type of work the affected individual may do. The majority of workers who are found to have pulmonary tuberculosis usually are able to continue at their regular jobs. Some of these need to be followed with periodic partial examinations to establish continued inactivity of the disease. The partial examinations are usually performed at the plant medical department. They will vary in comprehensiveness according to the individual case. A good minimum set of procedures at a follow-up visit is a brief history of interval health, a determination of body weight, measurement of the oral temperature, auscultation of the chest, and a determination of the blood sedimentation rate. The necessity for repeating chest films is determined by

[7] Kammer, A. G.: Some Practical Results of Physical Examinations, *Ind. Med.*, **10**:230, (June) 1941.

the appearance of previous films and by the findings at the partial examination, particularly the sedimentation rate. The intervals between visits, usually six weeks to three months at first, are gradually stretched out to a year. An effort should be made to bring the family physician or county sanatorium officer into the picture at intervals, to make sure that all are agreed on the decision and the estimation of progress made.

The industrial physician plays an important part in the rehabilitation of patients who have finished their treatment. It is wise in such instances to place the responsibility on a sanatorium physician for permission to return to work. He should also set a definite date on which a return to work is safe. The actual job to which an individual returns should be specified by the plant physician. Sawyer[1] tries to have patients return to the jobs they left, stipulating that they begin with shorter hours. The scheme is not applicable to all plants, and it may be found less inconvenient to production supervisors to have patients begin at the easiest jobs which are available and for which the individuals are qualified. Supervision of the patient should at first be in the hands of the physician who has treated him, the plant physician at this stage being satisfied with reports of progress and cursory examinations. As time goes on the individual decreasingly is a charge of the physician who treated him, and increasingly becomes a charge of the plant physician. A thorough job of supervision helps to insure that the individual will exert himself according to his capacity; it removes from his supervisors an unwelcome and unfair responsibility of designating the job he is to do; and it does away with a very natural fear of infection among fellow workers.

SUMMARY

1. Pulmonary tuberculosis is considered to be either industrial or non-industrial (community). Industrial tuberculosis is defined as adult pulmonary tuberculosis which has either been contracted at work or which, having been contracted at work or elsewhere, has been aggravated by the inhalation of silica dust.
2. An employer's responsibility for industrial tuberculosis includes an obligation to protect all his employes from harmful exposure to silica dust at work. Where this is impossible he should avoid employing people who already have tuberculosis.
3. General methods of tuberculosis control in a plant population are discussed. They are applicable in the reduction of industrial as well as non-industrial tuberculosis. The methods have to do with (a) case finding, (b) job placement and medical supervision of workers with inactive tuberculosis, and (c) participation in the rehabilitation of workers returning to work following treatment.

CONTROL OF SCARLET FEVER IN INDIANA

(Isolation and Quarantine)

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INDIANAPOLIS

Since our entry into World War II, leaders have stressed the need of health in order that each individual might be free to contribute to the war effort to the maximum of his ability. An individual who is sick or who must give a part or all of his time to administer to the needs of an invalid is obviously handicapped in productive ability. Thus, it may happen that some may unnecessarily become a liability instead of an asset to the nation. An epidemic, or even a sporadic case of illness, caused by Str. scarlatinae may thus materially reduce the efficiency of many for appreciable intervals.

A casual inspection of Tables I, II, and III discloses that although the trend of the death rate of scarlet fever is now downward, even approaching the vanishing point, the incidence of the disease has not greatly changed. Actually, many never consult a physician and, therefore, are never reported. It is likely that the incidence of scarlet fever in Indiana is now as high as at any time in the past. Epidemiologists agree that the disease is now much milder than it was forty years ago. Some attribute this change, in part, to the method of quarantine. Mild cases are not always quarantined; severe cases are usually quarantined. Thus, the strain of the streptococcus responsible for milder types of the disease has become more widely disseminated in contrast with those capable of inducing more toxic and more septic symptoms. The latter have a more restricted distribution because the isolation of the patient has limited their dissemination.

The tabular data representing the history and present status of scarlatina in Indiana are indeed encouraging, but they do not constitute valid evidence that we may not at any time, or in any place, have an outbreak accompanied by a high mortality rate. Furthermore, the mere fact that an individual case of scarlet fever runs a mild course does not insure that a serious complication, such as a diffuse nephritis, a damaged heart or a

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septicemia, cannot occur. What doctor has not seen an apparently mild case of the disease progress to a point where the parents insist the child is nearly well, and then a cervical adenitis appears that develops into Ludwig's angina, and pus pours from the throat and sinuses while some of the cervical glands suppurate. Such cases usually terminate fatally.

Actually, every case of scarlet fever is potentially dangerous. Each householder, every doctor, and all health officers should be ready to employ any and all standard measures of control that may be indicated. Yet, many individual cases and some epidemics are so complacently managed as to nullify the values inherent in the intelligent and effective application of sound procedures of control.

In this article an attempt is made to briefly summarize quarantine and isolation in the control of scarlet fever and to discuss these procedures in relation to hospitals.

Since scarlet fever must usually be diagnosed from the clinical symptoms, all doctors should be alert to detect the disease promptly. Illness appearing suddenly with nausea, vomiting, fever and sore throat, followed by a rash on the second or third day, is probably scarlet fever. Scarlatina without a rash may be diagnosed from the sore throat, fever, vomiting and history of exposure. The Schultz-Charlton blanching reaction, Pastia's lines, the Rumpel-Leede phenomenon, a characteristic dermographia, the strawberry tongue, and the desquamation are also useful signs not to be neglected by the diagnostician.[1] Some believe that

[1] Stimson, Philip Moen: *A Manual of the Common Contagious Diseases*, Lea and Febiger, Philadelphia, Second Edition, pp. 122-138, 1936.

TABLE I

SCARLET FEVER DEATHS BY MONTHS—1900-1942

	January	*February*	*March*	*April*	*May*	*June*	*July*	*August*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Total*
1942	2	2	.....	3	1	.....	2	1	1	.....	1	.....	13
1941	2	2	2	5	5	.....	.....	.....	1	1	3	2	23
1940	12	3	6	.....	3	3	1	3	2	1	2	5	41
1939	7	6	10	7	4	3	2	1	1	2	3	5	51
1938	11	9	7	7	2	4	2	4	3	5	7	8	69
1937	18	19	12	17	8	5	4	.....	2	4	9	8	106
1936	17	14	14	22	8	5	5	2	3	7	10	8	115
1935	22	15	16	8	7	3	2	6	4	4	12	17	116
1934	15	22	14	9	13	6	4	4	4	9	8	13	121
1933	13	4	11	7	4	3	4	.....	3	7	19	11	86
1932	5	8	18	9	7	5	2	1	7	5	13	8	88
1931	16	18	17	23	9	2	3	1	5	8	11	6	119
1930	8	10	10	3	10	4	4	5	.....	1	6	11	72
1929	17	16	13	10	12	9	4	5	2	4	5	9	106
1928	7	11	7	8	14	2	4	1	1	6	5	7	73
1927	12	16	9	.....	8	7	2	1	3	8	9	5	80
1926	19	11	24	10	6	3	1	1	1	5	5	9	95
1925	13	13	14	16	9	5	6	2	4	2	9	10	103
1924	7	7	6	4	14	4	.....	4	4	3	4	14	71
1923	11	13	11	9	2	7	3	2	5	3	12	8	86
1922	16	10	7	7	4	2	2	2	5	2	9	8	74
1921	26	18	20	16	12	8	7	4	5	9	17	12	154
1920	18	41	29	16	22	11	8	4	2	12	19	16	198
1919	7	10	15	7	11	4	1	3	4	4	4	9	79
1918	25	17	18	18	10	7	.....	5	3	3	6	5	117
1917	13	15	17	18	25	12	5	2	4	8	12	13	144
1916	13	14	11	14	7	4	1	1	9	4	7	11	96
1915	14	10	19	15	4	2	1	2	3	7	12	13	102
1914	18	7	10	21	4	5	4	.....	6	9	9	21	114
1913	15	22	36	26	21	18	5	7	8	13	13	15	199
1912	7	14	7	15	4	4	4	5	5	10	14	24	113
1911	30	19	36	23	17	12	5	4	10	7	5	11	179
1910	16	33	26	21	21	13	11	11	8	11	21	13	205
1909	11	11	7	11	14	9	9	6	8	21	19	25	151
1908	13	17	10	15	5	5	4	1	6	4	5	10	95
1907	6	9	18	9	5	3	10	5	3	7	8	8	91
1906	11	9	12	7	7	10	7	3	6	8	14	7	101
1905	18	11	20	21	11	4	14	6	5	5	11	7	133
1904	24	24	33	22	15	9	4	6	7	12	17	19	192
1903	22	13	10	9	4	6	13	8	13	16	18	34	166
1902	22	19	18	11	5	3	6	6	8	19	24	9	150
1901	24	18	27	18	9	12	5	5	4	3	10	14	149
1900	17	15	17	16	12	9	2	1	5	14	13	20	141
Total	620	595	644	533	395	252	183	141	193	293	440	488	4,777

The trend of the deaths by months follows the same pattern as that of reported cases, except for the month of February. Fewest deaths from scarlet fever occur in August; the largest number in March. The total deaths from scarlet fever during the interval 1900 to 1942 was 4,777.

the isolation of a hemolytic streptococcus from the patient's throat may be significant providing scarlatina is prevalent.

Early reporting is essential. The local health officer can not establish control procedures until he knows of the occurrence of the disease. The value of isolation or quarantine varies directly with the time of their application. The disease is said to be most contagious during the period of pharyngitis and afterwards into the second week of illness. Delay postpones isolation and facilitates dissemination of the germ either through personal contacts or by articles soiled by the patient's discharges.

Although the attending physician may not at first be certain that he is dealing with a quarantinable disease, he should, at the first suspicion, order the patient into isolation. If the environment prevents effective isolation, the health officer should quarantine the entire household and carefully define the limits thereof. In many instances the construction of the home and the reliability of the individuals make it possible to permit adult wage earners to continue in their former work. This is permissible, however, only when this individual does not come in contact with the patient, or his discharges, and when his work does not bring him into contact with children or with a food supply.

In Indiana the period of isolation required for scarlet fever is never less than twenty-one days. If necessary, it should be extended until the patient is well and until all abnormal conditions of the throat, nose, and ears have disappeared.

Exposed persons, residing in the house with the patient, who are immune because of a previous

TABLE II

DEATHS FROM SCARLET FEVER—1900-1942—BY AGE GROUPS

	-1	*1*	*2*	*3*	*4*	*5-9*	*10-14*	*15-19*	*20-24*	*25-29*	*30-34*	*35-44*	*45-54*	*55 & Over*	*Total*
1942	.....	.....	.....	.....	1	4	1	.....	2	1	1	2	1	.....	13
1941	3	2	1	1	5	2	4	1	1	1	.....	1	1	.....	23
1940	2	3	5	4	3	10	3	3	2	3	2	1	.....	.....	41
1939	1	6	3	3	6	12	4	7	1	2	2	4	.....	.....	51
1938	3	2	5	5	7	22	7	8	1	2	2	3	2	.....	69
1937	2	8	9	12	12	28	8	4	5	3	5	6	4	.....	106
1936	3	8	9	7	10	30	15	8	7	3	3	8	4	.....	115
1935	4	7	5	11	9	42	11	6	2	4	5	5	5	.....	116
1934	4	8	12	14	11	39	13	3	7	1	3	3	3	.....	121
1933	1	6	7	7	2	28	10	10	3	6	4	1	1	.....	86
1932	7	8	5	7	10	27	7	3	6	5	2	.....	1	.....	88
1931	3	8	11	15	14	36	11	6	8	2	2	2	1	.....	119
1930	1	8	4	4	5	20	11	.....	8	4	4	1	2	.....	72
1929	1	6	19	3	7	32	12	9	2	4	3	7	1	.....	106
1928	2	6	9	8	4	20	8	5	6	3	1	1	.....	.....	73
1927	5	9	4	6	7	23	9	5	4	2	2	4	.....	.....	80
1926	.....	11	11	11	8	23	8	3	10	2	2	4	2	.....	95
1925	4	10	6	6	9	27	17	3	6	2	4	6	3	.....	103
1924	2	5	12	4	7	20	7	3	3	5	.....	2	1	.....	71
1923	.....	10	15	5	10	18	10	7	3	2	3	3	.....	.....	86
1922	5	2	6	7	8	19	7	7	7	1	3	2	.....	.....	74
1921	8	21	8	15	14	33	24	9	8	9	2	3	.....	.....	154
1920	7	14	16	15	19	57	24	18	11	7	5	4	1	.....	198
1919	2	1	4	13	4	28	7	8	7	2	1	1	1	.....	79
1918	4	14	11	9	12	30	18	11	2	2	1	2	.....	1	117
1917	12	13	22	16	10	35	20	5	4	2	2	2	1	.....	144
1916	9	9	10	13	6	27	8	6	2	2	3	1	.....	.....	96
1915	9	13	8	16	6	29	12	4	2	.....	1	1	1	.....	102
1914	4	15	15	7	8	41	10	5	.....	5	1	3	.....	.....	114
1913	7	12	19	21	13	68	29	13	6	5	2	3	1	.....	199
1912	5	14	12	16	10	29	11	5	2	6	1	1	1	.....	113
1911	7	13	24	14	16	66	18	10	5	2	3	1	.....	.....	179
1910	13	24	21	23	19	61	20	10	7	4	.....	1	.....	2	205
1909	9	22	15	20	15	53	11	3	1	.....	1	1	.....	.....	151
1908	4	8	17	12	10	22	9	5	2	4	2	.....	.....	.....	95
1907	4	7	15	13	7	31	8	5	.....	1	.....	.....	.....	.....	91
1906	5	13	10	15	10	27	8	2	10	.....	1	.....	.....	.....	101
1905	10	18	20	17	14	38	11	1	1	2	.....	.....	1	.....	133
1904	13	27	33	25	18	61	11	2	1	.....	.....	.....	1	.....	192
1903	13	9	17	22	19	58	19	3	3	.....	1	1	.....	1	166
1902	11	13	17	24	14	49	14	3	3	1	1	.....	.....	.....	150
1901	7	14	29	18	22	39	8	4	2	3	1	1	1	.....	149
1900	7	17	22	20	18	45	7	4	1	.....	.....	.....	.....	.....	141
Total	223	444	523	504	439	1,409	490	237	174	115	82	92	41	4	4,777

A comparison of deaths by age groups for an interval of forty-two years reveals that deaths from scarlet fever became more infrequent with advancing age. The most dangerous age group is the one that includes children from under one year to four years of age, inclusive. The peak occurs during the second year of life. After the age of ten years, scarlet fever is a disease of relatively low fatality.

attack may be permitted to remove from the premises provided they do not return until quarantine is lifted. Exposed adults who, by reason of effective isolation of the patient, do not come in contact with him or his discharges are not restricted. Exposed susceptible children may, with the permission of the health officer having jurisdiction, be removed to a place where there are no other children. If no symptoms of scarlet fever appear in these susceptible contacts within a period of seven days, they may be released from quarantine but are not allowed to return to their former residence until the quarantine has been removed from that household. Should the householder decide to keep the children at home, they must remain there until the quarantine is lifted.

All other exposed, susceptible children should be quarantined in their own homes for a period of seven days from the date of last exposure. If no symptoms appear at the end of the interval, these may be released from quarantine. Hence, it is evident that no children remaining in the same household with a case of scarlet fever may return to school during the existence of the case.

Although not required by the public health regulations of Indiana, it seems desirable that children convalescing from scarlet fever should not sleep in the same bed with others who have not had the disease until after an interval of three weeks from the time of their release from isolation. Quarantine may be terminated regardless of the presence of desquamation. However, a patient who is desquamating is an object of curiosity to his schoolmates and, in addition, his presence in the school usually causes controversy. Therefore, he should probably not return to school until his skin has resumed a reasonably normal appearance.

Frequently a situation occurs that appears to necessitate isolation in a hospital or quarantine in a place other than the residence of the patient. Recently a well-educated man, a temporary resident of county X, became ill. He was sent to the county hospital. Soon thereafter the attending physician diagnosed the illness as scarlet fever. This hospital did not have a contagious disease ward and accepted the responsibility only under protest. The local health officer did not think the isolation as maintained at the hospital was effective. The patient was transferred to another room. Still not satisfied, the health officer sought and located a place in a private home. Here, the only contact would have been the proposed attendant, a nurse who had previously had the disease. In the meantime the hospital authorities and the attending

TABLE III

REPORTED CASES OF SCARLET FEVER—1911-1942

	January	*February*	*March*	*April*	*May*	*June*	*July*	*August*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Total*
1942	516	571	578	450	299	96	39	49	67	204	189	195	3,253
1941	488	661	898	570	435	131	59	38	50	200	378	353	4,261
1940	667	849	1,179	766	421	198	61	73	86	200	392	431	5,323
1939	986	1,005	817	961	560	233	103	91	204	320	540	654	6,474
1938	953	780	668	597	257	190	99	74	143	496	495	765	5,517
1937	909	738	1,016	1,030	456	320	138	82	149	576	579	666	6,659
1936	1,345	1,460	1,187	1,235	525	222	127	68	136	356	436	649	7,746
1935	793	1,069	1,042	724	451	232	90	99	229	622	684	912	6,947
1934	998	1,040	1,599	721	461	233	103	69	234	431	733	952	7,574
1933	512	554	703	944	431	215	81	82	291	545	880	866	6,104
1932	575	541	594	719	369	183	115	94	166	471	479	571	4,877
1931	1,559	1,407	1,347	1,165	913	354	116	80	112	293	415	406	8,167
1930	772	985	961	749	594	260	122	73	128	336	829	776	6,585
1929	497	861	1,456	819	1,090	564	159	190	132	240	557	522	7,087
1928	466	577	720	399	337	231	103	94	133	260	385	469	4,174
1927	1,108	1,342	945	992	472	368	142	104	161	396	481	421	6,932
1926	975	1,056	914	947	484	314	171	119	155	447	617	675	6,874
1925	927	892	951	856	703	292	129	103	125	511	750	918	7,157
1924	537	464	509	432	363	164	118	103	143	444	563	477	4,337
1923	417	412	334	346	271	199	75	76	164	236	392	532	3,454
1922	430	430	438	222	147	85	74	86	215	429	481	464	3,501
1921	1,173	1,169	1,227	928	556	276	136	112	224	573	567	557	7,498
1920	809	913	674	958	661	374	215	159	195	563	829	1,085	7,435
1919	270	411	469	404	316	160	100	109	257	420	506	683	4,105
1918	694	593	557	500	291	159	89	94	156	164	163	210	3,670
1917	490	548	544	543	443	203	129	71	179	371	470	794	4,785
1916	363	406	362	325	219	140	114	74	212	410	513	507	3,645
1915	792	524	381	294	226	136	112	124	212	364	501	399	4,065
1914	602	593	662	468	315	175	100	92	148	346	501	520	4,522
1913	564	699	641	578	357	320	97	135	227	483	486	484	5,071
1912	294	401	353	540	191	146	71	126	203	325	388	408	3,446
1911	818	623	641	551	519	90	141	135	223	280	334	314	4,669
Total	23,299	24,574	25,367	21,733	14,153	7,263	3,528	3,078	5,459	12,312	16,513	18,635	175,914

The total number of reported cases of scarlet fever for the interval 1911 to 1942, inclusive, was 175,914. Probably an equal number of mild, undiagnosed cases occurred. Many of the latter were not seen by a physician. Cases were reported from some part of the state during each month of all the observed years. The smallest number of cases are reported in August; the largest in March.

physician arranged to transfer the patient to a communicable disease ward maintained by the hospital of a neighboring county. Each of these procedures was conducted without the knowledge of those working on the other plan. The patient was transferred to the hospital in the neighboring county. The health commissioner of county X was naturally chagrined by this act. What should he do to rectify the situation? Does not the law authorize the health officer to remove a case of contagious disease to such designated place as may seem best adapted to protect public health? Does the hospital have the right to refuse to accept patients infected with a communicable disease?

A very carefully prepared official opinion was compiled in the office of the Attorney General of Indiana. The questions asked by the health commissioner of county X are substantially the same as others asked in many similar situations. Therefore, an official opinion should interest all superintendents of hospitals, physicians and health officers.**

OFFICIAL OPINION

Section 35-407 Burns R. S. 1933, provides:

The state board of health and county board of health and any local board of health, or a majority thereof, shall have power to remove or cause to be removed from any hotel, boarding-house, boarding-school, or other building of like character, tenement or apartment-house, to a proper place designated by such board, persons sick with any contagious, infectious or pestilential disease. . . .

Provided, however, That no person shall be removed under this act, except after examination and determination by two (2) physicians in good standing and practice that such person is sick with a contagious, infectious or pestilential disease. The boards of health above mentioned, may, by resolution, delegate the authority herein conferred to any health officer in the employ of such boards. (Acts 1903, Ch. 83, Sec. 7, p. 161.)

Section 35-408 Burns R. S., 1933, provides:

. . . That it shall be the duty of said board or such health officer to provide said building where such person or persons shall be quarantined . . .

"I therefore wish to advise, in answer to your first question, that if a sick person is located in any hotel, boarding-house, boarding-school, or other building of like character, tenement or apartment-house, that such health officer would have the authority to quarantine and remove said sick person to a suitable place. If no suitable place was available, under Section 35-408 Burns R. S., 1933, supra, he can provide such a place at the expense of the city or town, or if living outside of said city or town then from the general funds of the county.

"It is my opinion that a private hospital would not be required to accept such cases of contagious disease. Section 25-3605 Burns R. S., 1933, being one of the sections of the statutes governing charity hospital associations, provides in part as follows:

". . . It may elect whom it will receive and whom it will not receive as patients, what kinds of disease, deformities and injuries it will treat in its hospitals, or in any of them, and what kinds it will not treat, and for what length of time it will treat and care for any patient . . .

"Whether or not public hospitals, or those receiving financial assistance from cities, towns or counties, can refuse to take communicable disease cases brought to them by the local health officer, in my opinion, depends upon the fact of each individual case presented.

"A number of statutes govern the operation of said hospitals, including Sections 22-3201, et seq., Burns R. S. 1933, 48-7501, et seq., Burns R. S. 1933, 48-7514 Burns R. S. 1933. Said statutes authorize the board of managers of the hospitals to make reasonable rules governing the operation of the hospital. If the hospital should not have an isolation ward or such facilities for the segregation of contagious disease patients, in my opinion, they would not have to receive such patients.

"The Supreme Court of Indiana, in the case of *Blue* v. *Beach*, 155 Ind., 121, on page 130, in deciding defendant school officials could legally exclude plaintiff's son from attending school during a smallpox epidemic, when the son had refused to be vaccinated as required by the health officers, said:

"In order to secure and promote the public health, the State creates boards of health as an instrumentality or agency for that purpose, and invests them with the power to adopt ordinances, by-laws, rules, and regulations necessary to secure the objects of their organization. While it is true that the character or nature of such boards is administrative only, still the powers conferred upon them by the legislature, in view of the great public interests confided to them, have always received from the courts a liberal construction, and the right of the legislature to confer upon them the power to make reasonable rules, by-laws, and regulations, is generally recognized by the authorities.

"On the question of reasonable rules and regulations by the health department, see *Jew Ho v. Williamson*, 103 Fed. 10, 22. The court, in holding quarantine for bubonic plague of all 'Chinatown' unreasonable said:

. . . The police power of the state may be enforced by quarantine and health officers, in the exercise of a large discretion—as circumstances may require. . . . To accomplish this purpose, persons afflicted with such diseases are confined to their own domiciles, . . . The object of all such rules and regulations is to confine the diseases to the smallest possible number of people. . . .

** Permission to publish this opinion was granted by Mr. James A. Emmert, attorney general of the state of Indiana.

"It is therefore my opinion that the persons in charge of public hospitals, having the power to make reasonable rules governing the management of said hospitals, may make and enforce reasonable rules regarding the rejection or acceptance of cases of communicable diseases in said hospitals. It is the duty of the hospital authorities to make such rules and determine if admission of such communicable disease cases would endanger the health or lives of other patients in said hospital. However, such authority so exercised is not to be used arbitrarily, but must be reasonable in view of the facilities of the hospital and the ability to isolate such cases."

ABSTRACT

PENICILLIN RESEARCH COMMITTEE ISSUES FIRST CLINICAL REPORT

Penicillin is a remarkably potent antibacterial agent which can be given intravenously, intramuscularly, or by local application, but it is ineffective when given by mouth, the Committee on Chemotherapeutic and Other Agents, of the Division of Medical Sciences, National Research Council, declares in *The Journal of the American Medical Association* for August 28 in a statement outlining the findings from a study of five hundred cases of infection treated with the substance. The committee is composed of Chester S. Keefer, M.D., Boston, chairman; Francis G. Blake, M.D., New Haven, Connecticut; E. Kennerly Marshall, Jr., M.D., Baltimore; John S. Lockwood, M.D., Philadelphia, and W. Barry Wood, Jr., M.D., Baltimore.

Other conclusions from the study reported by the committee are that following intravenous or intramuscular injection penicillin is excreted rapidly in the urine, "so that in order to obtain an adequate amount of potent material in the circulating blood and tissues it is necessary to inject penicillin continuously or at frequent intervals; that is, every three to four hours.

"Penicillin has been found to be most effective in the treatment of staphylococcic, gonococcic, pneumococcic and hemolytic streptococcus infections. It has been disappointing in the treatment of bacterial endocarditis. Its effect is particularly striking in sulfonamide resistant gonococcic infections.

"While the dosage schedule requires additional investigation, it seems clear that the average patient requiring intravenous or intramuscular injections for serious staphylococcic infections requires a total of between 500,000 and 1,000,000 Oxford units, and the best results have been observed when treatment is continued for at least ten days to two weeks. At least 10,000 units should be given every two to three hours at the beginning of treatment, either by continuous intravenous injection or by interrupted intravenous or intramuscular injections.

"Satisfactory results are obtained in sulfonamide resistant cases of gonorrhea following the injection of 100,000 to 160,000 units over a period of forty-eight hours.

"Patients with pneumococcic pneumonia frequently recover following the use of 100,000 units given over a period of three days. This is especially important in sulfonamide resistant pneumococcic infections. . . .

"Toxic effects are extremely rare. Occasional chills with fever, or headache and flushing of the face have been noted. . . ."

The committee says that since the question of adequate or optimum dosage of penicillin has not been clearly defined, the objective in treatment should be the maintenance of a sufficient concentration of penicillin in the blood to inhibit completely the growth of the individual infecting organism.

The committee points out that the reason that the substance is ineffective when given by mouth is that investigators have shown that the gastric juice destroys penicillin rapidly at body temperature, the destructive action appearing to be due to hydrochloric acid.

Of particular importance is the declaration of the committee regarding strains of various organisms that are resistant to penicillin. The committee says that "It is of considerable interest that penicillin fast strains of pneumococci are susceptible to the sulfonamides and that sulfonamide resistant strains of pneumococci are susceptible to penicillin. Moreover, C. M. McKee and C. L. Houck have shown that an increase in the resistance of organisms to penicillin is associated with a proportional loss of virulence, an observation that is in striking contrast to the retention of virulence by sulfonamide resistant cultures.

"Obviously, more information is needed concerning penicillin resistant strains and their mode of production, since it may aid one in interpreting the clinical results or failure. . . ."

Regarding the results of treatment of Staphylococcus aureus infections with bacteremia, the committee says that 60 per cent of 91 patients recovered or improved under treatment so that recovery followed later. Death occurred in 37 per cent and no effect was observed in 3 per cent.

"In a group of such infections in which the fatality rate is so high," the committee says, 'these results are very impressive, since the over-all fatality rate in this group without penicillin or sulfonamides is usually about 85 per cent. . . . The failures only serve to emphasize the great importance of early diagnosis and immediate and adequate treatment. . . ."

Of 55 patients with osteomyelitis 48 recovered or improved and 7 showed no effect. However, it is pointed out by the committee that final statements concerning the ultimate outcome of these cases cannot be made until several years have passed.

Of 129 cases of gonococcic infection, all of which were sulfonamide resistant, 125 were free from symptoms and were bacteriologically negative within nine to forty-eight hours after treatment. These findings lead the committee to declare that "Here, then, is a most potent weapon in the treatment of sulfonamide resistant gonorrhea, and it is not too much to predict that penicillin will prove to be one of the most effective agents in the treatment of a disease that causes great ineffectiveness in the armed forces and in the civilian population."

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OCTOBER, 1943

OUR PRESIDENT

Carl Heber McCaskey truly is a Hoosier; born in Indiana, in Rigdon, Grant County, on September 1, 1877, the child of Harvey Martin and Harriett Ann Noble McCaskey, both his parents having been born in Indiana. To complete the tradition he was married to Miss Max Woolen, also Hoosier-born. He has one daughter, Mrs. Edward L. Farrell.

He was educated in the Indiana country schools, later graduating from the Indiana State Normal School, and after a teaching experience of four years he entered the Indiana University School of Medicine, graduating in 1898. He served as an extern at the Deaconess Hospital, Indianapolis, in 1897-98 and had an internship in the Indianapolis City Dispensary during 1908-09.

After four years in general practice he took up the study of diseases of the nose, throat and ear, and has practiced that specialty ever since. He completed numerous postgraduate studies, and it may be said that he continues this program up to the present time—few men in Indiana having had postgraduate work to the extent that he has.

Doctor McCaskey is serving on the staff of five Indianapolis hospitals at the present time, also as head of the Department of Oto-Laryngology at the Indiana University School of Medicine. As a teacher he is generally recognized as one of the foremost in his specialty, and his appearance upon a postgraduate study program brings forth a most appreciative registration.

He has served as head of numerous medical organizations within the state, as well as in some of the national specialty organizations. He also is a member of the American Board of Oto-Laryngology.

He has held a long list of offices within his state organization, bringing to each assignment a rare judgment of matters of professional importance.

Doctor McCaskey has written numerous papers, has made many addresses before medical assemblies—all of which have materially added to our store of medical lore. Recently we looked over a partial list of these papers, some three dozen in number, finding that they covered the whole field of his specialty.

His crowning achievement in professional circles has been his indefatigable efforts to promote the better interests of Hoosier medicine, as its titular head. We have had frequent opportunities to observe his work in this connection and often have been amazed at the fund of information of a worthwhile sort the man possesses, and he is free in the distribution of this valuable commodity.

A few months hence, when he is presented with the "diploma" accorded to all retiring association presidents, the donor might well say, "Well done, Thou Good and Faithful Servant."

THEY MAY MEAN SOMETHING!

Two items recently noted in the press intrigued us immensely. There appears to be somewhat of a rift in a cloud that for some time past has perturbed thinking medical men. Both of these items pertained to court decisions.

A federal judge down in Georgia, in rendering a decision, opined that some agencies apparently had decided that the Constitution of the United States was an "outmoded instrument." Further, he is quoted as having said, "Conditions created by the war do not enlarge constitutional power."

A few days later a Chicago jurist, famed for his knowledge of the law, made almost the same statement, but used a slightly different expression. The point is that both of these judges feel that even though we are in a state of war, a war so stupendous that the single mind cannot properly conceive it, the Constitution of the United States still gives Mr. and Mrs. John Q. Citizen some rights.

We have not reached the stage of dictatorship in this country—not quite; some things were guaranteed us by the Jeffersonian document, one of those being LIBERTY. That one word expresses just about everything; it was the desire for LIBERTY that impelled the crossing in the Mayflower; it was the desire for LIBERTY that created the settlement at Jamestown; it was the desire for LIBERTY that moved millions of immigrants to this country, and the desire for LIBERTY still lives and flourishes even though present-day activities too often seem directed against it.

There was a time when real jurists seldom made the front page. There was that certain dignity

about the bench that caused the "wearers of the ermine" to be more than chary about discussing court matters off the bench. Too often they did not state their opinions openly. Today things are far different; the smart judge elaborates on his decisions; he makes them clear, so the man on the street knows what the official has on his mind. We have been reading an occasional court decision for many years and have been pleased to note an ever-increasing clarity in these interesting documents. We might cite one jurist in particular whose decisions are of particular interest to us, those of Judge Curtis Shake. They make mighty interesting reading, and after having read one we know what the Judge had in mind.

There are thousands of judges in this country, and the two decisions mentioned are the only ones that have come to our attention, yet we feel that these two are notable in that they may herald some sort of a "new idea." We have been hearing a lot about the "new" this or that—a "new idea" might be a wholesome tonic for us and for the Nation.

From now on we will follow certain court procedures with much more than the usual interest, hoping to find more and more hopeful rays of light. We have had a lot of regimentation, and if certain groups in Congress have their way there will be a lot more of this undesirable commodity. The American people, as we view it, are not ready for regimentation; they do not want a Dictator; what they do want—and will continue to get—is the right guaranteed by that great document, the Constitution of the United States—LIBERTY!

PHYSICIAN, HEAL THYSELF!

Three physicians in one of our larger Indiana cities recently have died from "The Doctors' Disease," coronary affections. None of these was an "old man"—all, however, had been working unusually hard and working long hours. In looking over the obituary columns in several medical magazines we have been struck by the oft-recurring phrase, "The cause of death was coronary thrombosis," or "coronary occlusion," or some similar phrase, so it is apparent that among physicians there is an increase in the number of deaths from these causes.

We physicians long have recognized that overwork, with the addition of mental stress, is a great factor in the causation of this type of heart ailment. We have learned that in such a case the very first thing to do is to order *complete* rest, and we see to it that these orders are obeyed, with the fine result that many of these heart cases go along for years with little inconvenience, save that they cannot do all the things they used to do.

But too often the medical man fails to observe the rules he so meticulously sets down for his patients. At times he realizes that he is "dead tired," that the mental strain of medical practice in wartime is getting him down, yet he does nothing about it, save to take on a little more work. *Doctors are busy*, and no matter how carefully they plan their work for the day there are the ever-cropping-up emergencies that play hob with the best-arranged schedules.

The sick public commonly refuses to heed our pleas to make their requests for calls at an early hour in the day; too many of them wait until they feel certain the doctor is at home for his evening dinner, then call him from that dinner and pour into his ears their stories of distress. Our gastro-enterologist friends tell us that one should approach the dining table without a single care on his mind if he is to enjoy his repast and if his digestive organs are to function properly. If, then, after sitting down to a dinner to his liking he is compelled to interrupt his dinner hour and listen to some patient or a member of the patient's family, it is little wonder that in due time he becomes irritable, his digestive apparatus is quite out of kilter, and he is a potential coronary case.

We recall a man who for some years was located in one of our larger cities who refused to answer telephone calls until after his office hours. His secretary advised that "The doctor will call you immediately after he has finished with his office patients." The same thing applied during his meal hours at his home; except in a dire emergency did he answer telephone calls until he had concluded his meal. That doctor was smart—he realized the need for care of his personal health. Too many telephone calls come at the most inopportune moment, just when the physician is in the midst of an examination that requires the most intense concentration. And, by the same sign, too many come at meal time, when the physician should be free from such annoyances.

And doctors themselves too commonly are to blame for these phone annoyances; we often have wanted to express our feelings in this regard. We have physicians who wish to talk to a confrere and will tell his assistant, "Get Doctor Blank for me." Doctor Blank answers the phone and the sweet voice says, "Doctor Double-D Blank wishes to talk to you." Doctor Double-D Blank then finishes his conversation with his patient or visitor and condescends to get on the phone. He apparently does not realize that the other man is just as busy as he.

There is another phase, the patient who wants to talk about the son or sons in the armed services; that is one of the things doctors are supposed to do—listen to the full details of family worry. We cannot escape all this, but we should be shrewd enough to avoid many of these details. We all are concerned about our boys in service; few homes in the country are without service flags in the front window. We would like to sit us down and talk from now on about these boys, but we

just cannot do it—it adds to the already heavy mental strain the average doctor is now undergoing.

We cannot advise, "Take it easy"; that, of course, is out of the question, but each individual physician can by the exercise of a little ingenuity take many short cuts in his daily stint, and in so doing avoid many of the irritating moments that, added together, are courting disaster in the days to come. If we could learn to relax and carry out that relaxation several times daily, the phrase "death due to coronary disease" would be much less common in our medical journals.

"Vacations," as we used to know them, seem to be out for the duration, but most everyone can find an hour or two each day for this relaxation, which is just the thing we advise. Don't be a slave to your work; you will do far better work—and more of it—if you will learn the art of relaxation. Try it!

THE 4-H; AN APPRECIATION

Most doctors know what the term "4-H" means; most of them know what this organization of farm youth has done and is doing. The press of the country long ago gave it official recognition and now it has become one of the Nation's greatest institutions.

We are not familiar with the early history of the movement, but it generally is believed that the 4-H clubs were first organized in Indiana some forty years ago. It is our memory that it started as a "corn club." It is natural that livestock would soon have been added to the activities of these clubs. As they were being organized over the state, it soon became apparent that the girls of our farming communities wanted to get in on the project, so home economics became an additional factor in the program. Still later on, when the once lowly tomato began to demand its proper place in our lives and it was found that Indiana soil was a "natural" for its cultivation, it too, was added to the 4-H program.

We long have been interested in the 4-H program, having numerous patients among these boys and girls in our section of the state, and for many years we have taken time to talk to them about their work. We have seen many of their exhibits at the local fairs, as well as at the International Stock Shows in Chicago, and on occasion we have had the extreme pleasure of seeing the "blue ribbon," emblematic of "top of the class," adorning the entry of some one of our little 4-H friends. We never shall forget the ear-to-ear grin that adorned the countenance of one chap as we entered the exhibition room after the final judging had been completed. He called to me, "I got it; I got it!" and, sure enough, from one horn of his hand-raised steer streamed the blue ribbon, indicating that this boy had done the best of many good feeding jobs.

One can hardly contemplate what this all means to the future of farm life in America; not only does it mean better stock, better bread, better sewing in the rural homes, better tomatoes for all of us, but it also means a happier, more contented farm group all throughout the country.

This year the 4-H clubs really cashed in; they took top honors and they took first-page space in all of the Indiana papers.

The Indiana State Fair, a time-honored institution and long accorded first place in state fairs, had gone the way of all things in wartime. Much of the space at the State Fair Grounds had been taken over by the Army, and there was to be no State Fair for the duration. But someone thought of the 4-H clubs, and in they stepped, taking full charge. They proceeded to put on their own version of what they thought a State Fair should be, and it was more than a success—it was a Wow!

They had their bands; they had their exhibitions of their fancy stock and what-not, and there even was some of the pink lemonade to be had about the grounds. For about a week these youngsters put on a show that will make history in Indiana and will cause the State Fair managers to re-write the book on "How to Conduct a State Fair." Blue ribbons now adorn the room of many 4-H members, in their homes, while those who failed to acquire one of these awards are even now planning for next year. They learned a lot of new things down in Indianapolis.

Most Indiana physicians are well acquainted with many 4-H members. Those who are not are missing a lot and should at once begin such acquaintanceships. While the little chaps are doing pretty well, thank you, they do need your support. The very idea that their doctor shows an interest in their work is a mighty good tonic for them, and it will likewise tone up the busy physician who takes a little time off to fraternize with these up-and-coming boys and girls on our farms.

"OVERTIME" EXHAUSTION

In these days of war production, when practically every manufacturing plant in the nation is engaged in war work, the question of manpower is a most important one. We simply do not have enough of that commodity, so other expedients must be resorted to, even to the extent of employing thousands of women for work in departments that hitherto had been deemed man's domain. We have discussed "women in industry" on many occasions, but our present concern has to do with the hours of employment of both sexes.

Our newspapers daily carry ads in their want-ad sections, some of them of the display type, and in most of which the item "time and one-half for overtime" is prominently displayed. And this "overtime" thing is quite an allurement. Most folk want to make money, and if by the exercise

of an extra day, plus an added hour or two to the regular day's work, this pay check may be materially increased, too many of these employes proceed to do that very thing.

Physicians in the industrial section of Indiana, as well as in other states, are quite familiar with these matters. We all see men and women who rapidly are becoming physically exhausted. A man of over fifty recently came to our office for an eye examination. He had been ordered to have correcting lenses inserted in his safety goggles. The man appeared to be tired—he looked tired; he acted as if that was his chief ailment. On questioning him we learned that he had been working ten to eleven hours per day seven days per week. He was a skilled machinist, presently engaged in work that requires minute attention and concentration.

The man was tired; what he needed more than anything else was a respite from his daily toil, a complete relaxation. For him a vacation was "out"; the equipment he was then fabricating was a vitally important factor in the conduct of the war; it had to be produced, and he was the only man available for his particular kind of work.

A young woman employed in another essential industry, much of whose work was typing, complained of being tired, dizzy, subject to headache, et cetera. On questioning we learned she had been doing overtime work; for almost two weeks she had been at her typewriter for some ten or eleven hours per day, with but an occasional short rest period during those hours.

A man, the head of a vital department in a large war industry, came in for treatment and declared that he was "all in." We learned that for more than seventy-two hours he had been working. From the actual fighting front he learned that a huge war machine manufactured by his plant had a vulnerable spot—not a large one, but nevertheless vulnerable. By staying on the job for about three days he and his crew "licked" the thing; the instrument of death was no longer vulnerable in that small spot. We might cite scores of similar cases, involving those in executive capacities and those in minor roles in our plants.

Fatigue is a danger sign regardless of what form of work we may engage in, and he who heeds that warning does so wisely. Neglect of these frequent warnings means certain disaster, and it is the man of medicine who must interpret these signs. Especially is this important in the man of middle age; we again refer to one of the best medical talks we ever heard, "The Heart of the Man at Fifty."

These people come in complaining of dizziness, headaches, shortness of breath, perhaps a backache, fluttering of the heart, or just a "tired-all-over" feeling. They may tell you they get up in the morning about as tired as when they go to bed. *These folk are sick.* They may not have a fever; they may not have definite pains of a diagnostic sort, yet they are *sick.* They must have medical attention. It is true that their pay check is two or three times the amount it was in pre-war times; it is true that they can now indulge in such few luxuries as remain on the market and perhaps buy a new and larger home, but the fact remains that these folk are potential invalids, whether it be from a heart condition, a pulmonary affair, or from some other cause.

These workers must be told to slow down; their employers must be counseled properly. Already organized medicine has recognized these things and our Industrial Health committees are doing a good job of solving the many problems presented. Money, after all, is not the most important thing. It will require a lot of time and work ere these committees can do their job, but it is being done and being done well.

We are very proud of the part the Indiana State Medical Association is playing in this work; few states have a better Industrial Medicine setup; few states have a program so advanced as ours. Our committee has gone into the byways, one might say. They not only discuss and act on such things as plant fatigue, plant working conditions, et cetera, but they make a study of other highly-important matters, such as "how soon one should return to work after an appendectomy," "how soon one should return to work after having had a course of sulfa drugs," et cetera. All of these things are mighty important and enter into any composite discussion of the many problems presented by "overtime" work.

Editorial Notes

We are reliably informed that physicians assigned to the Seventy-second General Hospital, at Camp Atterbury, go through some of the training paces that are given to all the enlisted men. They are trained under actual field conditions, even to crawling through the local "no man's land," a trip requiring some half hour, *crawling* through water holes and a strip of Indiana's best brand of mud.

It is freely predicted that war conditions will materially increase the number of psychopathic cases. Already many institutions, notably the psychopathic section in the Indianapolis City Hospital, have reported a marked increase in the number of patients presented for examination and treatment. Most physicians have noted this tendency in their daily work, many of their patients exhibiting symptoms of mental disturbance of some sort.

Convention news, including the report of the actions of the House of Delegates, will appear in the November number of THE JOURNAL. Meetings held during the last week of the month cannot, of course, be reported in the number immediately following the convention.

The *Crown Point Star* chooses to call the Wagner-Murray-Dingell proposal a "political opiate," editorializing on the subject in their issue of September third. The editor naively says, "We are indeed a sick nation if we are willing to swallow such a pill." The country press, generally, seems to hold similar opinions about the proposed legislation.

Dr. W. T. Lawson, Danville, the oldest physician practicing in Indiana, had another birthday recently. His score now is ninety-four, yet he manages to attend to his daily professional duties with a vim not exceeded by many men several decades his junior. He also is the oldest living graduate of Wabash College, having graduated from that institution with the class of 1876. He was instrumental in transferring the Ladoga Academy to Danville, where it became known as the Central Normal College. He served as a member of the board of trustees for many years. Doctor Lawson has served as health officer for many years and also found time to serve as secretary of his local medical society, which position he still holds. He is one of the very few present-day physicians who made his early calls via horseback, carrying his armamentarium in saddle bags, later drove a horse and buggy, and then an automobile, now occasionally returning to the "horse and buggy" days.

Wingate Johnson, capable editor of the *North Carolina Medical Journal*, recently quoted from a letter sent by a medical student to his parents anent the new Governmental setup for medical and dental students. The quotation follows:

"Today it happened that a complaining taxpayer came forth with the statement that if he were paying for my education (and all other medical students), there should be some socialization of medicine after the war. If that idea becomes general, we are selling our souls in monthly installments. It seems to me that up to now the length of time and expense involved has served to safeguard the profession. People who had money enough to finance a medical education were (and are) likely to be people who know and can accept responsibility. People who had determination enough to borrow money to become doctors also are likely to be responsible people. The Government is taking this element out, and all that is needed now is a willingness to expend energy. I wonder what good can come from what is going on now. Maybe our Army experience will help prepare us for what is to come."

Reports from all over the state would indicate that home canning and preserving has been carried out in every section to a degree never before known in Indiana. Folk who had not done any canning for years, including some who never had done any, this year are busy with foodstuffs for the coming winter. They are well advised in the matter, if they but read the every-day comment on what to do and how to do it, since almost every paper and every magazine has a section devoted to canning and preserving. It would be well to remind your patients that home-canned foods, especially vegetables, should be *well heated,* ten minutes or more, before serving.

The plan of making the December issue of THE JOURNAL a "War Number," unique in that all the contributors to our columns on that occasion will be men in actual service, seems well on the way to success. We have letters from all over in answer to our invitations to submit articles for this number, many of them from the far outposts. One chap takes advantage of the situation to "let off a little steam" on the subject, opining that he is glad to know that some phases of wartime injuries will be discussed by men in actual combat service, rather than a textual, theoretical discussion by some chap far removed from the war arena. Old Cy Clark also takes full advantage of an invitation to crash the pages of THE JOURNAL, in fact, he is so enthused over the prospect that he closes his letter "With Love and Kisses," and the letter was addressed to the editor rather than to the feminine members of the editorial staff!

As evidence of the fact that American casualties of the present war are receiving prompt, efficient treatment, we have the comment of no less a person than a Lieutenant General of the United States armed forces. General McNair, telling of an injury he received while at the African front, graphically describes his personal experiences as follows:

"The medical service was superb. I know at first-hand the speed and efficiency with which they worked. I was wounded at 2:30 in the afternoon. Within ten minutes they had me at a battalion aid station. There two medical officers put a tourniquet on my shoulder to stop the bleeding, bandaged me, and fixed me up so I could be taken to the rear. I went from there in a jeep to the division clearing station where they gave me blood plasma and checked my dressing. They put me on a litter in an ambulance and started me farther to the rear. At 5:30, only three hours later, I was in a field hospital, had been treated twice, had had x-rays taken, and was ready to be operated on. That evening I came to in a warm bed, with no after-effects from the operation. . . . I didn't get this sort of treatment because I was a general officer. Buck privates were getting the same care."

President's Page

BLOOD PLASMA AND THE DOCTOR

The need for blood plasma and serum albumin is an all-important factor, especially since it is known by the Medical Corps that blood plasma is one of the greatest advances in medical history and that it is responsible for the saving of many lives which otherwise would have been lost.

How can the physician help in this project? He can urge the healthy individual in his community to donate his blood and to repeat his donation at intervals. Indiana has three areas which are close to fixed centers.

The northern part of the state operates out of the Chicago Center; the southern part out of the Louisville Center, and the whole of Central Indiana out of the Indianapolis Center. One fine thing about the blood which is being donated is that it comes from all creeds and races, rich and poor alike.

We have seen this plasma do wonders in our own hospitals when it was impossible to locate a donor for a patient needing immediate transfusion.

The Army and Navy have requested that the Red Cross secure 4,000,000 additional pints of blood in 1943. There will be no lack of donors, I am sure, to furnish this required amount. In commenting on plasma, Surgeon General Norman T. Kirk said that it was the foremost lifesaver used by the Army Medical Corps in North Africa.

When we read the commendation of the use of plasma by the men in service, those who have been severely injured, when it seemed as if the loss of blood and shock which goes with it would be the end, and they then received one or two, or maybe five or six, blood plasmas and found themselves snapping out of an almost hopeless condition, is it any wonder the cry comes from the armed forces for more blood plasma?

The following is cited from the paper "Lives Saved by Plasma," published by the American Red Cross Blood Donor Service, and is one of the many thousands of cases helped by plasma:

PHARMACIST'S MATE TELLS HOW PLASMA SAVED HIM—
MATES FOUGHT TO GIVE BLOOD

" 'If the folks back home could see American sailors fighting for the privilege of giving blood transfusions to their wounded shipmates after a battle,' says twenty-two-year-old Pharmacist's Mate Jim Cantrell of Albany, Georgia, 'The Red Cross would never have any trouble collecting blood donations for the Army and Navy.'

"Jim should know how important those blood donations are, for he was wounded in twelve places during a battle off Savo Island in the Solomons, and since that time has received five plasma transfusions, six whole blood transfusions and thirty-two saline-glucose injections. The plasma transfusions came first, Jim recalls, and they were the ones that were responsible for his being alive and on the road to recovery today at the Naval Hospital in Brooklyn.

"The tall, slender sailor was at a dressing station aboard a United States battleship when the battle began. 'It was about 12:30 in the morning, pitch dark and I couldn't see a thing,' Jim said during an interview at the Naval Hospital. 'When the enemy was sighted, we cut loose with flares, and started to fire. I saw two enemy cruisers sunk before I was wounded. A shell came through the bulkhead and lit everything up—a bright pink. I jumped to my feet as the shell exploded, and I received twelve major wounds. There were a lot of smaller wounds and two of my front teeth were shot out.' "

If any physician knows of persons who have not donated their quota of blood, please urge them to do so; plasma means life—let's keep the boys alive.

I am sure that the Red Cross units sent out to gather blood for plasma are extremely careful and that they use good judgment while securing the blood. Blood, made into plasma, works its miracle of lifesaving right at the front!

J. H. McCarthy

THE RED CROSS BLOOD DONOR SERVICE

C. G. CULBERTSON, M.D.

Technical Supervisor, Indianapolis Blood Donor Center

The use of blood plasma is now regarded as the number one factor responsible for the low mortality achieved by military doctors in caring for the wounded. We can be thankful that by December 7, 1941, blood donor centers were in operation. Soon after that date many new centers were opened, and at present the blood donor centers constitute one of the largest medical enterprises ever attempted. The first center for blood collection was in New York City, where, in the months previous to its founding, blood had been collected by hospitals and shipped to Great Britain. At the request of the Surgeons General of the Army and Navy, the American Red Cross, in cooperation with the National Research Council, began establishing centers in large cities throughout the country. In Indianapolis a center was opened October 29, 1941, by the Indianapolis Chapter of the American Red Cross. At that time the request from the armed forces was for 215,000 units of plasma (a unit consists of 250 cc. of plasma). At first the Indianapolis Center was asked to provide 480 pints of blood per week. The national requirements rapidly increased until 4,000,000 pints were needed for the year 1943, and for the Indianapolis Center this means 2,000 pints per week. Early in the program a considerable, yet proportionately small, amount of plasma was diverted to civilian defense stocks. This dried and frozen plasma is stored at various points over the state to be used in case of an emergency.

The local Red Cross chapters are given the job of recruiting donors. This includes the registration and scheduling of donors and the operation of the canteen. This is accomplished by a full-time center director and a corps of volunteer staff assistants and members of the Red Cross Canteen. The National Red Cross provides funds to pay full-time technical personnel and also for coordination and guidance on a national scale through the National Director and Technical Director. The technical procedure is carried out by teams consisting of a doctor and six nurses, under the direction of the volunteer technical supervisor appointed by the National Research Council. The blood is sent daily to the processing plant designated for this area. In this plant the plasma is separated, cultured, dried under vacuum, and tested for toxicity, after which it is placed in convenient administration outfits ready for immediate use. (As soon as the blood reaches the processing plants it becomes the property of the Army and Navy. Therefore, the Red Cross has no available blood or plasma for distribution.)

As the need for plasma increased and as experience was gained in conducting these centers, some changes have been necessary. The standards upon which donors were rejected or accepted were established. The technical procedure was made uniform in all centers and has proved to be a simple, efficient method of drawing blood. By applying these measures in a uniform way the quality of the blood obtained has been good, contamination rates low, and risk to the donor reduced to the minimum. In order to provide an increased amount of blood, it soon became necessary to call upon communities outside Indianapolis. Mobile units were assembled, which consisted of a truck carrying all of the equipment necessary for the operation of the technical team, and the Red Cross Motor Corps assumed the responsibility of transportation of the technical staff. Two Mobile Units now operate in cooperation with the chapters outside Indianapolis. The units have also visited practically all of the military establishments of the Army and Navy in this area. The inmates of the penal institutions have given blood regularly since the beginning of the program. It soon became impossible to obtain civilian doctors to man the units. Consequently, the Army and Navy now supply all of the medical personnel, but there are some civilian doctors in other centers. The nursing staff is composed of civilian nurses.

The welfare of the donor is the major consideration of the technical team. A record is kept of each donor. This includes the date of birth and answers to questions designed to determine the significant past medical history and the present state of health. The history is taken by graduate nurses who also determine temperature, pulse, blood pressure, and hemoglobin. If significant findings are elicited, the nurse calls this to the attention of the physician before the venipuncture is done, and he decides whether or not the donor should be bled. The donor is placed on a cot and the venipuncture is performed after proper preparation, which includes injection of 1 per cent novocain. The blood is allowed to flow by gravity and 500 cc. of blood is taken from each donor. When the full amount of blood is obtained the nurse discontinues the bleeding. Then the blood is placed in a refrigerator with proper identification data. In the processing plant a serological test for syphilis is done on a separate tube of blood from each donor. This sample is obtained by the nurse by draining the rubber tubing into a test tube after it is removed from the bleeding bottle. Grouping of the blood, which is carried out in the beginning, had to be discontinued because of shortage of personnel at the plants.

The after-effects noted in the donors are far less frequent than one would expect from experience gained from drawing smaller amounts of blood

in a hospital. About 3½ per cent of the donors are known to have a reaction. Usually this consists if a fainting spell, which varies in severity from mild dizziness to complete syncope and which on rare occasions is accompanied by convulsive twitchings. These reactions are a matter of inconvenience to the donor, but on the whole no serious permanent effects have been noted from them. On some occasions, as would be expected, donors faint after leaving the center, and no doubt physicians have been consulted in some of these cases of which the Blood Donor Center has never been informed. A few instances have been reported where cuts and even fractures caused by falls have occurred. In bleeding this number of individuals sore arms due to hematomas are bound to occur, but this has not been frequent. One or two cases have developed lymphangitis which subsided following proper treatment. Coincidental diseases have given rise to rumors which no doubt have kept some away from the centers. It is evident, in consideration of this phase of the work after bleeding over 100,000 individuals in the Indianapolis area, that the risk is exceedingly small and that the after-effects of the bleeding have been negligible. The attitude of the donors suffering such complications has been splendid; they have shown themselves courageous and extremely pleasant to deal with.

The Blood Donor Service gratefully acknowledges the help of the physicians of the state in this work. Their wholehearted cooperation in helping to prevent donations by persons who should not be bled is requested. It is equally important that all assistance possible be given in urging healthy individuals in each community to volunteer to give blood. Due to the danger of coincidental vascular accidents, it is not possible for the centers to accept hypertensive patients, even though it would possibly be of benefit to the individual.

It is naturally the responsibility of the physician to prevent the loss of blood. In the present situation we are faced with urging the civilian population to give a small amount of blood, which they can safely do, to replace the blood that our soldiers and sailors lose in amounts sufficient to cause death. It is life insurance of the most realistic kind, so the inconvenience and difficulties which are occasioned by the giving of blood shrink into insignificance. The doctor is in a position to spread the facts about the Blood Donor Service and to help the people realize the truth about it, thus seeing through the haze of ignorance and rumors. Stored plasma is needed not only for the treatment of shock on the battlefield but for use in Army and Navy hospitals in combatting surgical shock following the reconstructive operations which will have to be done for years after the war is over.

ABSTRACTS

WARNS OF CARBON TETRACHLORIDE

"The toxicity of carbon tetrachloride in cleaning solutions is still not as well known as it should be in view of the seriousness and extensiveness of poisoning which can result from the inhalation or absorption of this substance," *The Journal of the American Medical Association* for July 24 warns in answer to a query.

OFFERS SUGGESTIONS FOR LIMITING SPREAD OF INFANTILE PARALYSIS

Suggestions for limiting the spread of infantile paralysis are contained in a letter from a New York pediatrician to the editor of *The Journal of the American Medical Association* and published in the July 10 issue of *The Journal*. The letter says:

"In view of the approaching season for possible poliomyelitis epidemics, it seems wise to summarize possible suggestions for limiting the spread of the disease. These suggestions are founded on present day knowledge, viz.:

"In the presence of the disease in a community:

"1. Avoid the use of any water that is possibly contaminated with sewage either for drinking, swimming or washing utensils. We know that sewage can carry the virus considerable distances and for an appreciable time.

"2. Avoid exhaustion from exertion or chilling. We know that overexertion and chilling during the incubation period tend to augment the oncoming disease.

"3. Avoid injury to the mucous membranes of the nose and throat, such as that resulting from a tonsil operation. We know that poliomyelitis exposures in the early post-tonsillectomy period are liable to result in severe—even fatal—infections, usually of the bulbar type.

"4. Treat every minor illness as a possible case of poliomyelitis, particularly if there is fever, headache and some spasm of the neck, spine and hamstrings. We know that very mild cases of poliomyelitis without recognizable paralysis are much more numerous than paralytic cases. Suspected patients should be kept quiet in bed for several days, and until passed as well by a competent examiner.

"5. Strive for proper sanitary conditions and, in particular, destroy flies and their breeding places. We know that flies can carry the causative virus of poliomyelitis, although it has not yet been proved that they can carry enough to infect human beings.

"6. Avoid unnecessary physical contacts with other people, wash hands carefully before eating, and don't put unclean objects in the mouth. We know that many healthy people carry the virus in their intestines and that for some cases, perhaps most, the port of entry of the infection is the mouth.

"7. Don't prescribe or take drugs or chemicals that are intended to protect against the disease. As yet we know of none that will do this.

PHILIP M. STIMSON, M.D., New York."

RESULTS OF BLOOD DONOR QUESTIONNAIRE

VIRGIL SHEPPARD,

Executive Director, Department of Public Welfare, Indianapolis

Because of the fact that a large number of blood donors failed to return to the Indianapolis Center at the scheduled time for a redonation, the Blood Donor Recruitment Committee decided to send out during May and June, 1943, questionnaires to these donors to determine why they had not returned.

By sending out the questionnaire the committee hoped to accomplish two purposes: First, it was hoped that the reminder would bring some of the donors back to the center for a redonation; second, the committee hoped to learn what the reasons were for not returning, as it was believed that this information would be helpful in answering questions asked by prospective donors.

There were 19,057 questionnaires mailed; returns were received from 2,427 donors, approximately 12.8 per cent of those questioned.

Of the donors who replied, 43.5 per cent made definite appointments and 10.3 per cent stated that they would donate later. Three per cent of the group who said that they would donate later, gave illness as the reason for not doing so at once.

Eighteen and two-tenths per cent of the replies indicated that the donors were not now available; 8.9 per cent were in the armed forces; 7.6 per cent had moved out of the city; and 1.7 per cent were unable to come because of war work.

Health problems was the reason given by 24.3 per cent of the donors for not returning for a redonation. Some of the miscellaneous reasons given by the remaining 3.7 per cent were illness at home, over maximum age limit, and blood donation to others.

Following this summary is a copy of the questionnaire and a more complete breakdown of the replies.

BLOOD DONOR SERVICE
RETURNS ON REDONOR CARDS AS OF JULY 5, 1943

	Total No.	*Percent of Total*	*Total Percent*
A. Appointments Made and Potential			53.8
1. Made appointments	1,055	43.5	
2. Will donate later	175	7.3	
3. Ill now, will donate later	73	3.	
B. Unavailable Because of Change in Status			18.2
1. In service	216	8.9	
2. Moved out of town	186	7.6	
3. Because of War Work	41	1.7	
C. Unavailable for Health Reasons			24.3
1. Not physically able	66	2.6	
2. Under doctor's care	45	1.8	
3. Undefined illness	90	3.7	
4. Physician advised against	114	4.7	
5. Pregnancy or recent delivery	57	2.3	
6. Illness following last donation	42	1.7	
7. Refused by staff	27	1.1	
8. Blood pressu e, high or low	36	1.5	
9. Respiratory ailment	9	.4	
10. Loss of weight	4	.1	
11. Specific illness	40	1.7	
12. Heart	3	.1	
13. Gastric ulcer	2	.1	
14. Anemia	9	.4	
15. Underweight	27	1.1	
16. Teeth extraction	24	1.	
D. Miscellaneous			3.7
1. Age	17	.7	
2. Illness at home	7	.3	
3. Injury, unable to come to center	6	.3	
4. Blood donor to friend	20	.9	
5. No reason	34	1.4	
6. Died	2	.1	
TOTAL			100.00

"LIFE FOR THE WOUNDED"

The picture, "Life for the Wounded," used on the cover page of this issue, is a reproduction of a painting made by Jes Schlaikjer. This artist also painted the picture "Service Above Self," which was used on the cover page of the February, 1943, issue and was taken from an Army poster. Mr. Schlaikjer deserves honorable mention for these masterpieces, and the following is a brief biographical sketch of this artist:

Jes Schlaikjer was born in New York City, September 22, 1897. He is of Scandinavian ancestry. He was educated at Ecole-Beaux Arts, Lyons, France, the Art Institute in Chicago, and studied with Forsburg, Cornwell, Dunn and Henri.

Schlaikjer's art studies were interrupted by the first World War. He served in the United States Army from 1917 to 1919. His career as a painter started in 1924. In 1926 he was awarded the first Halgarten prize, of the National Academy of Design, and he has won other trophies since. His works appear in the Vassar College Collection and in the galleries of private collections. In addition, he has in the past done considerable illustrating for magazines.

With the entry of the United States in World War II, Schlaikjer was employed by the Graphic Section of the Bureau of Public Relations in the War Department. He has painted the originals of many of the striking Army posters which have been used, his models being officers and enlisted men of the Army. He was loaned by the Army to the Reichel Laboratories for the painting of the blood plasma transfusion picture which is called, "Life for the Wounded." The original painting hangs in the office of the Army Medical Corps, in Washington.

WHAT WENT ON DURING WORLD WAR I

THE JOURNAL had taken on a full wartime flavor, practically all of the articles in the scientific section being devoted to subjects pertaining to War Medicine. President, J. Rilus Eastman, in his official address, talked about "Indiana Doctors and the War"; Colonel Franklin H. Martin, head of the National Council of Defense, Medical Section, also addressed the meeting, as did G. W. H. Kemper, of Muncie, M. E. Foley, of Indianapolis, and Major Baltzell, also of Indianapolis—all these addresses pertaining to the war situation.

* * *

Editorially, Dr. Bulson had much to say anent the war and the role that Indiana medicine was playing therein. The Volunteer Medical Service Corps, a rather new organization, continued to receive much attention in the pages of THE JOURNAL.

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Surgeon General Gorgas had retired, and the appointment of his successor, Major-General Merritt W. Ireland, had been announced. General Ireland was an Indiana man, having formerly lived at Columbia City.

* * *

It had been officially announced that newly appointed medical officers should not wear their uniforms until they had been ordered to duty.

* * *

Several American doctors who were in service in France had announced that they had learned to speak French very fluently.

* * *

Provost Marshal-General Enoch H. Crowder had announced that medical members of exemption boards must stick to their jobs and not enlist in the Reserve Corps until their present work had been concluded.

* * *

Doctors were reminded that the use of the Red Cross emblem on their cars was a definite violation of the federal law.

* * *

The editor again commented on the tax situation, being somewhat of the opinion that "taxes were high." (Wonder how he would react to the present tax setup?)

* * *

Doctor Bulson raved over the fact that a cultist member of the Indiana State Board of Medical Registration and Examination was taking undue advantage of his position and had opened another "branch office" in Indiana, with an unlicensed operator in charge. (This situation had existed for some years and was creating much unfavorable comment in medical circles. Later on the practice was discontinued.)

Dr. William H. Stemm, North Vernon, had been elected as the new president of the Indiana State Medical Association.

* * *

A few doctors of draft age, who had ignored all pleas from various sources to enlist in the Reserve Corps, found themselves quite embarrassed when they were inducted into the army as privates. Several such cases were reported from over the country. (That could happen today.)

* * *

Secretary Hurty was being criticized for having mailed very important health orders as second class mail which, of course, meant that in some cases no attention was paid to said orders. It seems that many physicians, as now, did not pay much attention to second class mail.

* * *

Samuel Hopkins Adams, writing in *Collier's Weekly*, said, "The vast complex job of making over our peace doctors into war doctors is the nearest thing to 100 per cent achievement that the Government has yet performed in this war."

* * *

National prohibition, so the editor said, did not go far enough in that it failed to prohibit the sale of many nostrums that generally were recognized as being sold in great quantities because of their large alcoholic content. (We personally recall that in the early days of prohibition many of the local town's "leading citizens" stepped up to the drug store counters and bought their daily bottle of this or that tonic, sometimes selling under the name of "bitters." Even Lydia Pinkham's Vegetable Compound found much favor with many *men!*)

* * *

Captains Joseph Weinstein and Charles N. Combs, both of Terre Haute, had arrived in France for duty.

* * *

M. A. Austin, Anderson, had been appointed as a captain in the Medical Reserve Corps and had been ordered to Camp Custer, Michigan.

* * *

J. B. Maple, then of Shelburn, had been named a captain in the Medical Reserve Corps and had been ordered to Camp Beauregard, Louisiana.

* * *

Gasless Sundays were in effect and were causing many problems among Indiana doctors, lest they be accused of pleasure driving on those days. Some had been using the Red Cross emblem, but that had also been declared "out"—so what to do? Evansville physicians hit upon the expedient of flying a little white flag from their cars when making Sunday calls.

Military News

Captain Joseph C. Dusard, of Bedford, now at Camp Claiborne, Louisiana, has been advanced to the rank of major.

Captain Clarence H. Rommel, formerly of West Lafayette, has been promoted to the rank of major, and is now staff surgeon in the new general hospital at Spadra, California.

Donald Dean, M. D., former Rushville physician, who is stationed in Iceland, has been promoted to a captain in the Army Medical Corps, according to word received by Mrs. Dean.

Lieutenant R. B. Dubois, formerly of West Point, Indiana, has been promoted to the rank of captain, and has been transferred from Camp Clairborne, Louisiana, to Camp Swift, Texas.

Captain Ernest R. Beaver, former Indianapolis physician, who has been on duty at Abilene, Texas, should now be addressed at A.P.O. 645, care Postmaster, New York, N.Y.

Dr. Marion M. Crum, of Angola, was recently promoted to the rank of captain, owing to outstanding devotion to duty in directing medical aid at the Sedalia Army Base Hospital, where he is flight surgeon. Captain Crum has now been transferred to the Army Air Base at Alliance, Nebraska.

Lieutenant Walter A. Dycus, of Evansville, has been promoted to the rank of captain. After completing a course of special training in field surgery and medicine at Carlisle Barracks, Pennsylvania, he is now stationed at the Desert Training Center, California, as surgeon in the 58th Evacuation Hospital.

We were pleased to receive word from Major A. Ward Bloom, formerly of Marion, who spent seven months in England but who has been in Africa since last February. He says that he received THE JOURNAL regularly while in England, but that since his transfer copies had not reached him until the past two months. He gave his new A.P.O. address in the hope that this would remedy the situation. May this serve as a reminder to all the physicians in service to keep us posted concerning new addresses so that your copy of THE JOURNAL may reach you.

Lieutenant Mount E. Frantz, former Danville physician, has been commissioned a captain in the Army Air Corps, with headquarters at Macon, Georgia.

Word has been received that Lieutenant D. D. Gill, former Greenfield physician, has been promoted to the rank of captain and is now stationed at the Avon Park Bombing Range, Avon Park, Florida.

Lieutenant Voris F. McFall, formerly of Anderson, is now on duty in an army base hospital on Guadalcanal.

Lieutenant Colonel Jay F. Havice, formerly of Fort Wayne and recently stationed at Camp Edwards, Massachusetts, is now overseas, his address being A.P.O. 4716, care Postmaster, New York, N.Y.

Calvin B. Fausset, M.D., formerly of Indianapolis, has been promoted to the rank of major at the San Antonio, Texas, aviation cadet center. Major Fausset is chief of the neurological service and consultant neurosurgeon for the Gulf Coast training center hospitals.

Captain Anton P. Hattendorf, former Fort Wayne physician who is now a battalion surgeon in the Army Air Corps Medical Department, witnessed the fall of Tunis. He has been awarded the African-Tunisian campaign ribbons. Captain Hattendorf arrived in Africa in January, 1943.

Lieutenant Colonel Frank M. Hall, of Indianapolis, has been appointed as Medical Inspector, Navy Recruiting and Induction—3rd Joint Service Induction Area, Baltimore, Maryland. He was succeeded in office by Lieutenant Commander Robert W. Phares, who is serving as Senior Medical Officer, Navy Recruiting and Induction, Indiana Area, Indianapolis.

In a letter from Dillon Geiger, formerly of Bloomington, we are informed that he is chief of the eye, ear, nose and throat service, as well as the plastic surgery service, at the Station Hospital, Miami Beach, Florida.

He also writes that Dr. Don Covalt, of Muncie, is in charge of the rehabilitation service, and that Captain J. E. Gillespie and Lieutenant Loren Martin, two other Indiana boys, are stationed there, Captain Gillespie being in charge of the tropical medicine service.

—*American Red Cross Photo.*

One of our members, Major William F. Edwards, of New Albany, is shown above, administering blood plasma to an American soldier just behind the front lines at Buna. Major Edwards wrote a letter to New Albany, urging civilians to give blood to save a life. Concerning his experience with blood plasma, we quote from the *New Albany Ledger*, as follows:

" 'From experience gained last fall, the blood of the men and women of American civilians was the means of saving many a son or husband of American and Australian women during those terrible days of the campaign. The dried plasma, reliquified by the addition of a fluid, was not only used to restore the lost volume of blood due to hemorrhage from gunshot wounds, but it was also used to restore strength to the half-starved, dehydrated men who had been living and fighting in the jungle under the most terrible conditions.

" 'If I had the say, I would state that the most outstanding achievement of the Army doctors during this war so far, has been their use of the dried human plasma. It saved many a life that otherwise would have been lost.

" 'I hope that when the campaign for donation of blood for the Red Cross opens in New Albany, everyone who can will share some of their blood with the boys who are helping to rid the world of the forces of treachery and intolerance.

" 'If these everyday American civilians had to go through the "hell of the jungle" just one day there would be no question about indecision as to whether they should give one lone pint of their blood. Who knows—it may have been a son or brother of their own, in any case it's someone's son or brother!'

"And, in a personal paragraph to Mrs. Edwards, he urged, 'don't hesitate to give your blood—it may have been me, you know, who needed it. Give, someone's life may depend on that one pint of your blood!' "

The address of Captain Thomas W. Johnson, former Indianapolis physician, is now A.P.O. 508, care Postmaster, New York, N.Y.

Lieutenant Colonel Francis P. Jones, former Indianapolis physician, having graduated from the Command and General Staff School at Leavenworth, Kansas, is now Senior Medical Umpire in the Tennessee Maneuver Area, Nashville, Tennessee.

In a letter to relatives, Major Benjamin F. Pence, of Columbia City, stated he had recently met Captain Otto F. Lehmberg, of Columbia City; also Captain K. C. Hardesty and Captain O. T. Kidder, both of Fort Wayne, in the North African area.

Captain Wayne L. Ritter, former Indianapolis physician, has been promoted to the rank of major, and is now in charge of the development of health and safety measures in the defense plants in the state of Mississippi.

Announcement has been made of the promotion of Dr. Earl W. Bailey, formerly of Logansport, to the rank of captain. He is serving as chief of surgery somewhere in Central Africa. One of his recent patients was Madame Chiang Kai-Shek, who travelled through Africa.

Lieutenant V. K. Stoelting, formerly of Winchester, has been advanced to the rank of captain, and is now regimental surgeon of Camp Whiteside, Fort Riley, Kansas.

Former Indianapolis physician, Lieutenant Commander Walter Stoeffler, has been transferred from Bethesda, Maryland, to Corpus Christi, Texas.

Major Wm. A. Sandy, formerly of Indianapolis, who had an A.P.O. address, is now on duty at the Station Hospital at Jefferson Barracks, Missouri.

Captain Lowell C. Smith, former Lafayette physician, has been promoted to the rank of major. He is surgeon at the Memphis air base.

Captain Herschel S. Smith, formerly of Gary, has been promoted to the rank of major in the Medical Detachment of the 411th Infantry Regiment, Camp Claiborne, Louisiana.

The *Madison Courier* recently carried an account of some of Dr. George A. May's war experiences. Dr. May served in Ireland and later in Africa, but has been on a leave. In talking to a Madison organization he reminded his hearers that Axis espionage may be regarded lightly by some, but that the Germans certainly must have some effective communication, for the U-boats off the _____ coast sank another vessel, thinking they had sunk the one he was on, and in their wireless report of the sinking gave the correct name of the ship as their victim, a thing that only a few aboard the vessel knew.

Captain E. H. Hall, formerly of Dunkirk, is now with an evacuation hospital, his address being A.P.O. 185, care Postmaster, Los Angeles, California.

A recent communication from the War Manpower Commission, Bureau of Placement, advises that the new address of the Central Office of the Procurement and Assignment service is 1775 Pennsylvania Avenue, N. W., Washington 25, D. C.

A catchy and tuneful song has been written (words and music) by Hertha Ann Duemling, of Fort Wayne, wife of Commander Arnold H. Duemling, Senior Medical Officer of the United States Navy Amphibious Training Base at Fort Pierce, Florida. The song, in part, follows:

"Amphibious, that's the name for us,
In the Army and the Navy.
In God we Trust—the enemy we'll thrust.
Down with Tyranny.
The Alligators carry Yanks, tanks and 'taters,
Wherever the need might be.
When freedom's at bay,
Victory we say,
Amphibs of the U. S. A."

From the Delaware-Blackford newsletter for July we quote from the letter of Captain John L. Carter, formerly of Muncie:

"I was stationed in New Zealand for a time, and a great little country it is. I had been in my quarters possibly two hours when the village doctor, a graduate of an English school, came to call. He showed me around in his car, had me for tea, and was a great old man. When I visited Rotorva, the chief resort down there, I met a Doctor Duncan, graduate of Edinburgh and a frequent visitor to the States. He controls most of the hot spring baths under government supervision and has kept out quackery that so often creeps into such places. He has a good supply of physiotherapeutic apparatus and does not present his spa as a cure-all at all.

"One item of interest in these islands north of New Zealand is the native medical practitioner. Chosen from their villages, they are educated in a school under British colonial control and returned to their islands. They visit each village, train the natives in sanitation, first-aid, midwifery and such, and have done a great job of improving living conditions. Some of the villages are models of cleanliness . . . . Some are very backward . . . . Our greatest puzzle is a low grade fever with mild malaise and no other symptoms . . . . They usually recover in three to five days . . . . It may be an atypical dengue fever."

News Notes

Dr. and Mrs. F. V. Martin, of Michigan City, celebrated their golden wedding anniversary on August sixteenth. Doctor Martin has practiced medicine for fifty-one years, forty years of that time in Michigan City.

Fort Wayne continues to head the list of large American cities where no deaths have occurred from typhoid fever for the last several years. There has been no typhoid death in Fort Wayne for eight years. South Bend comes second, with no typhoid death for seven years.

Dr. A. J. Steffen, of Wabash, has been appointed local surgeon for the Wabash Railroad Employes' Hospital Association. He succeeds Dr. Noah H. Thompson, of Wabash, who recently retired from the position.

The International Medical Assembly will hold its annual meeting at the Palmer House, Chicago, October 26-29. Registrations are open to any member of a local county medical society, on presentation of the current membership card. The announced program is on a par with former meetings, which have come to be recognized as among the foremost gatherings of medical men in the country.

Captain Charles M. Gingerick, formerly of Liberty Center, has been honorably discharged and retired from the United States Army Medical Corps because of physical disability.

POSTGRADUATE ASSEMBLY OF THE INSTITUTE OF MEDICINE OF CHICAGO

A Postgraduate Assembly on Nutrition in Wartime will be held on Wednesday and Thursday, November 17 and 18, 1943, in the Palmer House, Chicago, and will be devoted to phases of nutrition that are of particular interest to practicing physicians, dentists, nutritionists, and dietitians at this time. There will be no fees of any kind and all members of the above professions in Chicago and the Midwest are invited to register.

The Assembly will present a carefully integrated program which will include five addresses, six panel discussions on the afternoon of the second day, a "Nutrition Information Please" program on the first evening; and the first William Hamlin Wilder Memorial lecture by Dr. Russell M. Wilder, Chief, Civilian Food Requirements Branch, War Food Administration, Washington, on the evening of the second day.

A complete program and registration blank can be secured by addressing The Institute of Medicine of Chicago, 86 East Randolph St., Chicago 1, Illinois.

Major Metodi Velkoff, formerly of Fort Wayne, but who has been on duty at Billings Hospital, Fort Benjamin Harrison, has been honorably discharged and has taken up his practice in Fort Wayne.

SOUTHERN MEDICAL ASSOCIATION

The Southern Medical Association will hold its thirty-seventh annual meeting at Cincinnati, Ohio, November 16-17-18, 1943. The opening day, Tuesday, will be devoted to general clinical sessions, and will be a Kentucky and Ohio Day, the program being made up of physicians from both the Kentucky and Ohio sides of the river. On Wednesday and Thursday two general sessions will meet concurrently, representing surgical and medical specialties, respectively. There will be no formal sections this year, each of the twenty-one sections furnishing its proportional share of papers for the general sessions. An invitation has been extended to the members of the Indiana State Medical Association to attend this meeting. The President is Dr. Harvey F. Garrison, Jackson, Mississippi.

MEETING OF THE ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES

The Association of Military Surgeons of the United States will convene in Philadelphia October 21, when the Association begins its three-day sessions in the Bellevue-Stratford Hotel to mark the fifty-first meeting of the organization.

Medicine's methods of meeting the new and complicating factors brought on by mechanized modern warfare will also highlight the sessions. There will be reports and discussions on such new matters as air evacuation, parachute injuries, the physiological aspects of high altitude flying and dive bombing, tropical medicine, blast injuries, amphibious operations, submarine warfare, immersion and temperature extremes, neurosurgical problems and the whole field of rehabilitation.

The military surgeons' meeting will be opened with addresses of welcome by Governor Edward Martin, of Pennsylvania, and Mayor Bernard Samuel of Philadelphia. At the initial evening session, to be known as "Army Night," the President will deliver his greetings to the convention via radio. There will be addresses by the Chinese Ambassador, Wei Tao-Ming, and by Surgeon General Norman T. Kirk, of the United States Navy.

At the following night's session, which will be known as "Navy Night," the principal speaker will be the Honorable Frank Knox, secretary of the Navy. The presiding officer will be Rear Admiral Ross T. McIntyre, surgeon general of the United States Navy and personal physician to the President.

Nationwide hook-ups will carry reports of the meeting to the public at large and by short-wave broadcast to the people in allied countries, who will be apprised of the progress of the convention and its meaning to the men in arms and national health in general.

Robert L. Dilts, M.D., a graduate of the Indiana University School of Medicine, is now associated with Dr. L. A. Ensminger, of Indianapolis.

Dr. Nettie Bainbridge Powell, of Marion, celebrated the fiftieth anniversary of her practice on September fifth. Doctor Powell is past president of the Grant County Medical Society, and also of the Eleventh Councilor District Society. Although Doctor Powell has been in semi-retirement the past few years, the present emergency has drawn her into fairly active work again. She was one of the original sponsors of the Baby Clinic, and visits the clinic twice each month to examine babies.

INDIANA MEDICINE ON THE AIR

Medicine has been on the air in Indiana throughout the month of September. In order to give information concerning the annual state convention, a radio committee was appointed by the Indianapolis Medical Society, with Dr. Robert E. Jewett as chairman, to arrange for radio programs to publicize the convention and to bring the messages of some of the prominent speakers to the people of Indiana.

Stations throughout the state were so responsive to the idea that an elaborate series of programs was worked out and presented with the aid of local secretaries and county society members, under the direction of the Bureau of Publicity.

In Indianapolis all four stations provided time for programs. A series of four, "Medicine at War," was presented over WIRE. The first three were given in cooperation with Billings General Hospital at Fort Benjamin Harrison, with Lieutenant Colonel G. A. Owsley, Major E. W. Cullipher, Major Bert Bullington and some of the wounded patients appearing. The last was an interview with Dr. Herman E. Hilleboe, senior surgeon in charge of the Tuberculosis Control Section of the U. S. P. H. S. in the Coast Guard, during the convention.

Dr. Carl McCaskey, president of the Indiana State Medical Association, appeared over WFBM in the program "Hoosiers at War." Thomas A. Hendricks, executive secretary of the State Medical Association, and Doctor Jewett were on the Junior Chamber of Commerce program, and Admiral Ross T. McIntire spoke over that station during the convention.

Dr. Jane Ketcham, chairman of the Women Physicians Committee, was interviewed over WISH, and Dr. Herman Kretschmer, president of the American Medical Association, spoke over WIBC.

Three programs, "Doctors at War," "Safeguarding Civilian Health," and "Better Health for All," were presented over the following stations by county secretaries or local doctors: WBOW, Terre Haute; WOWO, Fort Wayne; WSBT, South Bend; WKMO, Kokomo; WIND, Gary; WKVB, Richmond, and WLBC, Muncie.

INDIANA UNIVERSITY NEWS NOTES

Dean W. D. Gatch, of the Indiana University School of Medicine, has announced the internship appointments for 123 doctors who received their Doctor of Medicine degrees at the University's commencement held August 22. Twenty-six of the young doctors will be located at the City Hospital of Indianapolis, thirteen at the Indiana University Medical Center, eight at the Methodist Hospital in Indianapolis, and two at St. Vincent's Hospital in Indianapolis. Seventeen additional doctors will go to Indiana hospitals in Muncie, South Bend, Lafayette, Gary, and Fort Wayne. The remaining fifty-seven will be in New York, Ohio, Panama Canal Zone, Illinois, Louisiana, Wisconsin, Michigan, Maryland, Virginia, Colorado, California, Connecticut, Washington, Oklahoma, British Columbia (Canada), North Carolina, and Oregon. These men received their commissions upon graduation and will enter military service upon completion of their internships.

The following Indiana University doctors will serve their internships at the Indianapolis City Hospital: Max D. Bartley, Indianapolis; Sam W. Campbell, Indianapolis; Robert Chattin, Washington; John J. DeFries, Milford; Betty Joy Dickerson, Indianapolis; Joseph E. Dukes, Dugger; Nicholas Egnatz, Jr., Hammond; Gerald E. Fisher, Lebanon; Philip C. Hennessee, Indianapolis; John A. Hetherington, Indianapolis; Paul E. Humphrey, Indianapolis; Robert Lohman, Fort Wayne; Jack B. Miller, Winslow; Marcella Sullivan Modisett, North Manchester; Lewis E. Morrison, II, Indianapolis; Stephen J. Rudolph, Jr., Indianapolis; William C. Schafer, Decatur; Joseph L. Sheridan, Kokomo; Chester A. Stayton, Jr., Indianapolis; Paul W. Steele, Oakland City; Fred W. Tempey, Jr., Indianapolis; Dean T. Verplank, Gary; Hugh L. Williams, Martinsville; Kenneth R. Woolling, Indianapolis; Arthur F. York, Anderson, and Robert O. Zink, Indianapolis.

Those who will be at the Indiana University Hospitals in Indianapolis are: Leland G. Brown, Muncie; David L. Buckles, Hartford City; John O. Butler, Indianapolis; Eunice R. Carter, Oxford; Richard Hughes, Indianapolis; Paul E. Jarrett, Muncie; Robert Kemmen, Indianapolis; Abe Leff, Indianapolis; Theodore Makovsky, Valparaiso; Robert A. Morris, Rochester; Earl H. Mitchell, Jr., Indianapolis; Morris Salzman, Indianapolis; Josephine Van Fleet, Farmland.

The Methodist Hospital in Indianapolis will have the following Indiana University graduates: Stewart D. Brown, New Albany; Hilbert H. DeLawter, Indianapolis; Clifford Ernst, Indianapolis; W. Richard Harding, Indianapolis; Carl Huckleberry, Greencastle; Roger E. Lingeman, Muncie; Evered E. Rogers, Newark, N. J.; Malcolm O. Scamahorn, Pittsboro.

William M. Huse, Jr., and Robert A. Kimmich, both of Indianapolis, will be at St. Vincent's Hospital.

The following Indiana University doctors will be at other Indiana hospitals:

Ball Memorial Hospital, Muncie: Robert A. Christman, Marion; John W. Funk, Sr., Marion; Jean F. Hinchman, Geneva. Epworth Hospital, South Bend: Everett F. Donnelly, Lucerne; Don W. Herrold, Grass Creek; Charles O. Joest, Connersville; Joseph P. Ornelas, Gary; Donald S. Painter, Garrett, and Charles Plank, Logansport. St. Elizabeth's Hospital, Lafayette: William T. Douglas, Lafayette; Joe M. Martin, West Lafayette, and John B. McClellan, Muncie. Mercy Hospital, Gary: Zigfield Hodurski, East Chicago. Lutheran Hospital, Fort Wayne: Robert L. Schmidt, Evansville. St. Joseph Hospital, Fort Wayne: Floyd Walker, Indianapolis. Methodist Hospital, Gary: Russell H. Palmer, Lagrange. Lutheran Hospital, Fort Wayne: Victor L. Boerger, Fort Wayne.

Other graduates of the August medical school class will be interns in the following hospitals: Walter P. Anthony, Jr., Princeton, United States Navy, St. Albans, New York; Stephen R. Beluk, Gary, Good Samaritan Hospital, Dayton, Ohio; Clarence E. Boyd, Indianapolis, Gorgas Memorial Hospital, Ancon, Panama Canal Zone; James E. Brennan, Bedford, Cook County Hospital, Chicago; Rolla D. Burghart, Indianapolis, Quantico, Virginia; John W. Courtney, Indianapolis, Edward J. Meyer Memorial Hospital, Buffalo, New York; Hubert R. Dagley, Bloomfield, United States Public Health Service, New Orleans, Louisiana; Edward J. Ettl, South Bend, Wisconsin General Hospital, Madison, Wisconsin; Morris R. Ferguson, Wayne County Hospital, Eloise, Michigan; James C. Fish, South Bend, Gorgas General Hospital, Panama Canal Zone; William B. Ford, West Point, United States Navy, Bethesda, Maryland; William L. Franklin, Indianapolis, West Suburban Hospital, Oak Park, Illinois; John E. Freed, Jr., Terre Haute, Wesley Memorial Hospital, Chicago, Illinois; Robert A. Garrett, Indianapolis, Cincinnati General Hospital; Ralph L. Gibson, Indianapolis, St. Francis Hospital, Peoria, Illinois; Jack R. Glosson, Rockville, United States Public Health Service; Richard P. Cripe, Indianapolis, Henry Ford Hospital, Detroit, Michigan; Jack J. Hatfield, Indianapolis, United States Navy, St. Albans, New York; Arvin T. Henderson, Ridgeville, United States Public Health Service, Norfolk, Virginia; Kenneth A. Hill, Paragon, St. Lukes Hospital, Denver, Colorado; Jerome M. Johnson, Milltown, United States Public Health Service; Robert E. Johnson, Muncie, William J. Seymour Hospital, Eloise, Michigan; Robert F. Jones, Vincennes, United States Public Health Service; Carleton A. Keck, Evansville, United States Navy, Norfolk, Virginia; Elgin P. Kintner, North Manchester, United States Public Health Service; Julius Klaus, Gary, United States Public Health Service; Harold E. Kosanke, Hammond, Presby-

terian Hospital, Chicago; Robert E. LaFollette, New Salisbury, Cleveland City Hospital; C. W. Lambert, Indianapolis, United States Navy; Dorothy V. Mainland, LaPorte, Queens General Hospital, Long Island, New York; Richard L. Mason, Marion, United States Naval Base Hospital, Oakland, California; John B. Masters, Indianapolis, Gorgas Hospital, Panama Canal Zone; John R. Mellen, Indianapolis, Norwalk General Hospital, Norwalk, Connecticut; John D. Meschuk, East Chicago, United States Public Health Service, Seattle, Washington; Robert H. Mitchell, Indianapolis, United States Navy; Jackson W. Modisett, Terre Haute, Norfolk, Virginia; Lowell F. Peterson, Plymouth, Presbyterian Hospital, Chicago; Ernest H. Price, Greensburg, United States Public Health Service, Seattle, Washington; Dale S. Raines, Terre Haute, Wesley Memorial Hospital, Chicago; Don Q. Randall, Bunker Hill, United States Navy; Maurice M. Rath, Newark, New Jersey, United States Public Health Service; Ira M. Rosenthal, Brooklyn, New York, Lincoln Hospital, New York City; Howard H. Rowe, Rochester, Pontiac General Hospital, Pontiac, Michigan; Max W. Rudicel, Huntington, St. John's Hospital, Tulsa, Oklahoma; Clyde E. Rush, Muncie, Santa Clara County Hospital, San Jose, California; Mary Jane Sherfey, Brazil, Vancouver General Hospital, Vancouver, British Columbia; Alexander Shevchik, Gary, United States Public Health Service; Donald E. Stephens, Marion, United States Navy; Loring L. Unger, Farmland, City Hospital, Winston Salem, North Carolina; George R. Weber, Petersburg, Providence Hospital, Detroit, Michigan; John Weber, Fort Wayne, United States Navy, Annapolis, Maryland; David Weiner, New York City, Metropolitan Hospital, Panama Canal Zone; Ralph D. Wigent, Indianapolis, Pontiac General Hospital, Pontiac, Michigan; Albert J. Wisch, Whiting, Cook County Hospital, Chicago; Lee R. Woods, III, Corvallis, Oregon, St. Vincent's Hospital, Portland, Oregon, and Robert Wright, Indianapolis, Columbus Hospital, Seattle, Washington.

Deaths

William Cullen Squier, M.D., of Richmond, died at his home on September first, aged sixty-seven. He graduated from the Ohio Eclectic Medical College, Cincinnati, in 1907.

John P. Sellman, M.D., of Washington, died August eighteenth, aged sixty-nine. He was a graduate of the College of Physicians and Surgeons of Baltimore, in 1896.

James Francis Hatfield, M.D., of Rossville, died at his home August twentieth, aged seventy. He graduated from Ohio Medical College in 1897.

Howard W. Burkley, M.D., a former Jonesville physician, aged sixty-three, died in August. He graduated from the Medical College of Indiana in 1902.

Stephen C. Markley, M.D., of Richmond, died August twenty-eighth. Doctor Markley had served on the staff of Reid Memorial Hospital from the time of its organization, and was secretary of the staff for twenty-four years. Doctor Markley was lieutenant-colonel in the Medical Reserve Corps in World War I. He was a member of the Wayne County Medical Society, the Indiana State Medical Association, and the American Medical Association.

ABSTRACT

REPORT EFFECTIVE USE OF NEW SOLUTION FOR EPIDEMIC EYE DISEASE

Effective use of a solution of sodium sulfathiazole containing desoxyephedrine in the treatment of epidemic keratoconjunctivitis, the new eye disease, is reported in *The Journal of the American Medical Association* for July 10 by H. S. Gradle, M.D., Chicago, and G. H. Harrison, M.D., Waukegan, Ill.

"Epidemic keratoconjunctivitis," the two men say, "has taken an enormous toll of man-hours during the past year, for the average loss of working time incurred in each case is from fourteen to eighteen days. Consequently any measure that can reduce such wastage is worth trying, even though it may not be uniformly successful. On that basis we are reporting the use of a new therapeutic measure that in our hands has proved worth while. It is realized that the number of cases is small, that the results are only those of clinical observation and that the accurate serologic proof is missing."

The authors say that the new medication is harmless to the tissues of the eye, and reduces the time of the acute aspect of the disease to three to seven days. The solution is used as eye drops. In the fifty cases reported by them treatment was continued for several weeks after the acute phase had subsided.

Society Reports

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

August 22, 1943.

Roll call showed the following present: C. A. Nafe, M. D., chairman; C. H. McCaskey, M.D.; J. T. Oliphant, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: Thurman B. Rice, M.D., state health commissioner; members of the Legislative Committee—N. M. Beatty, M.D., and J. Wm. Wright, M.D., co-chairmen, John Hewitt, M.D,. H. L. Murdock, M.D., George Daniels, M.D., and A. P. Hauss, M.D.; members of the War Participation Committee—C. R. Bird, M.D., chairman, J. R. Newcomb, M.D., vice-chairman, Merrill S. Davis, M.D., Glen W Lee, M.D., and Carleton B. McCulloch, M.D.; Major H. H. Reeder, Fifth Service Command, Fort Knox, Kentucky.

The statements of receipts and expenditures for June and July for the association committees and THE JOURNAL were approved.

Membership Report

Number of members August 21, 1943	3,176*
Number of members August 21, 1942	3,211
Loss over last year	35
Number of members Dec. 31, 1942	3,259

* This figure includes 114 honorary members and 803 men in service who received membership gratis.

1943 Annual Session at Indianapolis, September 28, 29 and 30, 1943

Commercial exhibit. All spaces (50) have been sold.

Scientific exhibit. Dr. Culbertson reports that there will be a scientific exhibit.

"Medsoc" letter exhibit. The committee approved an expenditure of not to exceed $100 for arranging an exhibit of the "Medsoc" letters at the annual meeting. This is to be in charge of Dr. Ray Newcomb.

Instructional courses, Tuesday, September 28. Program for instructional courses approved by the committee.

Scientific program. Report made that scientific program had been completed.

Annual dinner.

a. Dinner is to be absolutely informal.

b. Entertainer to be obtained.

c. Special table to be arranged for Auxiliary officers and the president of the A.M.A. Auxiliary.

Special table to be set aside for the ex-presidents and their wives and the wives of those seated at the speakers' table. Dr. Charles N. Combs is to be asked to take care of these arrangements.

d. *Entertainment of guests.* This will be the special duty of Dr. Oliphant.

e. Arrangements made for badges.

f. *Report to House of Delegates.* The committee approved the annual report to the House of Delegates.

Legislative, Legal and Social Security Matters

National

A.M.A. Legislative Bulletin No. 28 sent to members of the Executive Committee.

Article entitled, "Getting Medical Viewpoint Before Congress," which appeared in *Minnesota Medicine* in August signed by Stephen H. Baxter, president of the Minnesota State Medical Association, brought to the attention of the committee.

Letter from Dr. James E. Paullin, president of the American Medical Association, in regard to correction of the statement which appeared in the Associated Press dispatch concerning "the establishment of government-supported medical centers and the relocation of physicians" brought to the attention of the committee.

Wagner-Murray-Dingell social security bills (S. 1161 and H. R. 2861) discussed by the committee.

Local

Following a meeting of the Legislative Committee, Dr. N. M. Beatty and Dr. J. W. Wright, co-chairmen, and other members of the committee made a report to the Executive Committee.

Organization Matters

The committee deeply regretted to receive word of the death of Dr. Arthur T. McCormack of Louisville, secretary of the Kentucky State Medical Society and state health commissioner. Dr. Shanklin prepared an editorial concerning Dr. McCormack for publication in the September issue of THE JOURNAL.

Invitation to speak at Secretaries' Conference, Wisconsin, and to attend Michigan State Medical Society meeting. The committee approved the executive secretary accepting the invitation to speak at the Secretaries' Conference at Milwaukee, Wisconsin, September 12.

As the Michigan State Medical Society meeting is only a week before the Indiana State Medical Association meeting, it was felt best by the secretary not to accept that invitation this year because of the press of last minute arrangements which always comes before the state meeting.

Honorary membership for Dr. Arthur Cramp. Letter received from secretary of the Porter County Medical Society, suggesting that Dr. Arthur Cramp, former director of the Bureau of Investigation of the American Medical Association, be given honorary membership in the Indiana State Medical Association, brought to the attention of the com-

mittee. The committee suggested that a resolution nominating Dr. Cramp for life membership be presented by the delegate from Porter County at the first meeting of the House of Delegates, to be held at 4:00 o'clock, Tuesday, September 28, in the Assembly Room at the Claypool Hotel, during the annual session.

Fountain-Warren County Medical Society delegates. Fountain-Warren County Medical Society named a delegate and alternate to the state meeting, neither of whom is a member of the Fountain-Warren County Medical Society, one being a member of the Illinois State Medical Society, and the other a member of the Tippecanoe County Medical Society. The committee was of the opinion that under the Constitution and By-Laws of the state association these men could not serve as delegates from the Fountain-Warren County Medical Society, and the secretary was instructed to write the proper letter to the secretary of that society.

Letter in regard to activities of association. Letter received from a physician complaining about the state association and bringing up the question as to what good a state medical organization does at this time brought to the attention of the committee. This letter was answered by the executive secretary and will be the basis of the executive secretary's annual rport.

Dr. Romberger discussed medical organization work and made a suggestion in regard to the formation of a National Physicians' Guild.

Keep closer to man in practice. Dr. Oliphant made a suggestion that every effort should be made by the headquarters office, by the Executive Committee, and the officers of the association, to keep closer in touch with the man in practice. It will be necessary to expend more effort upon this than in the past due to the fact that those at home are extremely busy and those in the armed forces feel themselves temporarily detached from medical organization problems. The Executive Committee felt that this was a comment worth having.

War Medicine

War Participation Committee. The War Participation Committee met jointly for noon lunch with the Executive Committee and made a report following its preliminary morning meeting. This report is to be forwarded to headquarters office by Major Glen Ward Lee, who acted as secretary for the War Participation Committee.

Gasoline rationing for hay fever patients. The local OPA said that they could do nothing in regard to this locally and correspondence on this subject was forwarded to the American Medical Association where it was taken up with the national OPA authorities.

Farm Security Administration

Letter in regard to transient agricultural workers received from Dr. J. A. McElligott, medical advisor to the Midwestern Agricultural Workers Health Association, brought to the attention of the committee. The committee is still strongly of the opinion that these workers should be cared for by the usual methods, as they receive money and should pay for medical services according to their ability to pay, just as anyone else does.

State Board of Health

Care of service men's wives and children. Resolutions, letters and statements against the method used in caring for service men's wives and children, received from Lake County, Washington County, and Dr. E. S. Jones, brought to the attention of the committee. Also statements concerning this subject from Ohio, Michigan, and California, had been forwarded to members of the Executive Committee.

Report made that Dr. Henry Nolting, chairman of the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health, had sent questionnaires to all states, asking how the matter is being handled in other states. Dr. Nolting's committee was in session during the meeting of the Executive Committee and Dr. Thurman B. Rice, state health commissioner, appeared before the Executive Committee to discuss this subject. He said that there would be between twelve and fifteen thousand of these obstetrical cases in Indiana this year, which would involve a cost of one and one-half million dollars. It means that the State Board of Health must be prepared to write at least 200,000 letters and report forms a year. He stated that he did not approve of the Government paying fees for those who can afford to pay them, yet the bill makes no difference between those who are able to pay and those who are not.

The committee again reaffirmed its stand upon this subject, which has been printed in the minutes of former meetings and also in the annual report, namely, that the committee cannot object to the purpose of this legislation but it does object to the use of federal funds for the payment of medical services for anyone, whether soldier or civilian, who is able to pay for such medical services.

Suggestion made that Dr. McCaskey, president of the state association, appoint a special reference committee upon this subject, to which will be referred all resolutions, statements and questions in regard to obstetric and pediatric care of service men's families during the annual session of the association. (Dr. Nolting has suggested that his committee have a separate room at the Claypool Hotel during the state meeting where a member of the committee would be present during the entire meeting and could answer questions in regard to this matter. This room might serve as a meeting place for the special reference committee, which would set aside certain hours for hearings upon this subject.)

Reports on Army rejectees because of syphilis. Dr. Rice discussed with the committee the request coming from Washington that certain reports be made upon those who have been rejected by the

Selective Service System for service in the Army due to syphilis. Major Lee spoke of the fact that many of those who had been rejected originally because of syphilis were now in service and were undergoing treatment.

Medical Relief

Copy of Medical Aid Manual sent to each county medical society by the Medical Relief Committee. Dr. Oliphant is to discuss this manual in his talk before the House of Delegates at the first meeting of the House on September 28.

The Journal

Complaint of Rabbi Goldblatt in regard to article copied from the *Michigan State Medical Journal* in editorial notes concerning refugee physicians discussed by the committee. The committee felt that as this was copied from the *Michigan State Journal*, Rabbi Goldblatt's criticisms and comments should be sent to the editor of the *Michigan State Journal.*

Representative on Cooperative Medical Advertising Bureau. The committee requested information in regard to the enlargement of the Cooperative Medical Advertising Bureau in accordance with the recommendations made by the Indiana State Medical Association and adopted at the meeting of the Bureau members in Chicago at the time of the meeting of the American Medical Association last June. The executive secretary reported that no notice had been received in regard to this matter from the American Medical Association. The committee instructed the secretary to inquire of the American Medical Association in regard to any action that had been taken along these lines.

Advertisements from those concerns which have been carried in the past in THE JOURNAL shall be taken on a month-to-month basis until after the meeting of the Council on Pharmacy and Chemistry in September and recommendations from the Council in regard to these products are received by THE JOURNAL.

National Physicians' Committee. A complimentary copy of THE JOURNAL is to be sent to the National Physicians' Committee.

New classification for physicians' directory. The committee disapproved any new classifications.

Change in mailing list costs for THE JOURNAL noted by the committee.

Medical Defense

Report on group medical defense coverage. Letters from various companies in regard to group medical defense coverage and report upon possibility of having a group insurance policy for Indiana discussed by Dr. Nafe who has made a study of this problem. It was suggested that Dr. Nafe make his report to the Council and to the House of Delegates at the annual session, with a recommendation that a study committee be appointed to go further into detail in this matter.

There being no further business, the meeting was adjourned.

ADVISORY COMMITTEE TO THE DIVISION OF MATERNAL AND CHILD-HEALTH OF THE INDIANA STATE BOARD OF HEALTH

EMERGENCY MATERNITY AND INFANT CARE, PROGRAM AND FEES

August 22, 1943

I. Minutes of last meeting:

Since the business of the last meeting concerned the fee schedule for the purchase of medical care, which was published in the July issue of THE JOURNAL, the reading of the minutes was dispensed with.

II. Dr. R. E. Jewett, director of the Division of Maternal and Child-Health, reported on the administration of the program for the families of men in the armed forces, stating that the responsibilities of the division had been tremendously increased since the program was started June 10, and many clerks had been added to the staff.

It was anticipated early that 15 to 20 per cent of all live births, 1,200 to 1,500 per month, would occur in the eligible categories. There is evidence that most eligible persons have applied for assistance, since referred cases have averaged approximately 1,200 per month. This also indicates the general cooperation of the profession.

III. Obstetric Fees:

In the light of experience, certain changes in the fee schedule seemed to be in order and the matter was discussed and certain revisions suggested. These are as follows:

1. The adequacy of the fee for complete obstetric care, now $45, was discussed. It was agreed that this was a fair fee, considering the state as a whole, although limited for metropolitan areas. It was brought out, however, that there was general misunderstanding of the fee for circumcision, included under pediatric care, many physicians thinking that a fee of $10 could be charged for routine operation of the newborn. It was decided that circumcision of the newborn should be considered a part of the regular postpartum care. However, since misunderstanding occurred, it was decided that the fee for complete postpartum care of mother and newborn infant for six weeks after delivery should be increased to $10—this to include care of complications and circumcision of the newborn. This decision increases the fee for complete obstetric care to $50.
2. The portion of the obstetric fee applying to prenatal care, while limited if care includes a prenatal complication, was adjudged to be a fair average rate for payment. It was pointed out that care rendered prior to the date of application, and care not included under the program, remains the obligation of the patient. It was decided that the fee of $2 per visit, with a maximum of $10, should be retained.

3. The fee of $30 for delivery care and $15 for care during an abortion or miscarriage of a nonviable infant were judged to be a fair average, and it was decided that a "sliding-scale" for the various possible complications was not feasible.
4. In addition to increasing the fee for complete postpartum care of mother and newborn to $10, a division of this fee to provide for separate care of mother and newborn was decided upon. This division will provide $5 for complete postpartum care, including circumcision, by the physician rendering obstetric service, and $5 for routine pediatric supervision of the normal infant from birth to six weeks. This enables the referral of normal newborn infants to the care of a pediatrician. Regular pediatric fees apply to the referral of sick infants when separate application is made.

IV. Obstetric Consultant Service:

It was agreed that if consultant fee for major abdominal surgery or cesarean section were involved, it should be comparable to the fee for complete obstetric care. Since this fee is raised to $50, it was decided that the fee for consultant service should also be raised to $50. The fee for simple bedside consultation was not changed, but the fee for consultant service, involving assistance at the time of delivery, was increased to $30.

V. Pediatric Care:

It was agreed that the fees for pediatric care, although minimal, must apply to the state as a whole, and to the specialist and general practitioner alike. Since they approach an average, they were not changed.

The fee of $1 per visit for medical inspection of the well infant, while low for the initial examination by a pediatric specialist, was close to the average fee for office visits generally. It was suggested, however, that payment of single fees is too involved, and that collective payment might be made at the time of the sixth-month visit and again at the time the infant reached the age of one year.

It was agreed that the pediatric fee schedule should be referred to men in practice for suggestions before making any changes. The matter was referred to Dr. J. C. Carter for further study.

The increase in the fee for postpartum care makes possible a minor change whereby a fee of $5 will provide for pediatric supervision of the normal newborn from birth to six weeks. Care of sick infants may be provided according to the regular pediatric fee schedule, when proper application for pediatric care is made.

VI. Pediatric Surgery:

It was agreed that the fee for therapeutic circumcision of the infant from six weeks to one year should be reduced to $5 and that this should not apply to routine circumcision of the newborn nor the dorsal-slit operation. The fees for minor surgery, $10, and major surgery, $30, were deemed adequate.

VII. Pediatric Consultant Service:

The fees for pediatric consultant service were left unchanged.

VIII. Methods of providing an approved list of consultants were discussed and the following conclusions reached:

1. The State Medical Association is to ask county medical societies to designate specialists for each of the various specialties, including obstetrics, pediatrics, surgery, urology, radiology, opthalmology, ear, nose and throat, et cetera.
2. Specialists so designated should be physicians limiting their practice to this special field, or considered by their colleagues to justify the status of a consultant in a designated field.
3. Consultants so chosen need not reside locally, although they should be within a reasonable distance and within the boundaries of the state.
4. Pending the selection of consultants by county societies, only certified members of American boards will be considered consultants.

IX. The committee was advised that under certain conditions wives and infants of men in the armed forces of the first, second and third grades could receive assistance. When, because of certain conditions, the family of an enlisted man in one of the three higher grades is in need of assistance, application may be made by the family physician and authorization will be made if the need is indicated.

X. Various criticisms of the program and certain critical resolutions from three county medical societies were discussed. The committee felt that in most instances these criticisms were made without a thorough understanding of the program and without consideration for the careful planning by the Executive Committee and the Advisory Committee, for steps were not taken until the need for action was evident. In considering the interests and demands of the public, the best interests of the profession were also taken into account.

It was pointed out that the medical societies of Ohio and Michigan had found it necessary to drop their policy of opposition because of the general, and even organized, pressure of public opinion. It was agreed that the Indiana State Medical Association had done well to demonstrate a willingness to cooperate from the very beginning.

The advisability of asking dissenting medical groups to meet with the Advisory Committee was discussed, and it was decided that this did not seem necessary at this time, since opinions were evidently changing.

XI. It was resolved that the committee should be provided with a room at the headquarters for the state medical meeting, September 28-29, where

physicians could call to discuss any phase of the program with members of the Advisory Committee or the director of the Division of Maternal and Child-Health.

XII. It was also resolved that, with the Executive Committee of the State Medical Association permitting, a radio release would be prepared and put out during the state meeting, outlining the official position of the state association in regard to maternity and infant care for the families of enlisted men. It was agreed that this matter should be called to the attention of Mr. Hendricks.

Committee Members,

H. F. NOLTING, M. D., *Chairman*, Indianapolis;
J. C. CARTER, M. D., Indianapolis,
C. J. ROTHSCHILD, M. D., Fort wayne,
K. T. KNODE, M. D., South Bend,
W. L. PORTTEUS, M. D., Franklin,
FOSTER J. HUDSON, M. D., Indianapolis,
JOHN D. VANNUYS, M. D., Indianapolis.

REVISED FEE SCHEDULE FOR EMERGENCY MATERNITY AND INFANT CARE PROGRAM*

Prepared by

The Advisory Committee to the Division of Maternal and Child-Health of the Indiana State Board of Health

This fee schedule is in effect as of October 1, 1943, and it is not retroactive. Authorization thereafter becomes effective on the date that application is submitted by the physician. Payment cannot be made for services rendered prior to the date of authorization. Payment for previous care, and care not included under the emergency program, remains the obligation of the patient or family.

FEES FOR OBSTETRIC CARE

Prenatal Care

For complete prenatal care, including complete physicial examination and necessary tests, when application is made not less than one calendar month before delivery ... $10.00
If less than above, $2.00 per visit.

Labor and Delivery

For complete care during labor, delivery, and immediate puerperium ... 30.00
For abortion or miscarriage before the seventh month of gestation ... 15.00

Postpartum Care

For care of the mother and circumcision of the newborn infant ... 5.00
For care of the normal newborn infant from birth to six weeks ... 5.00
For complete care of the mother and newborn infant and a postpartum examination at the end of four to six weeks ... 10.00

Maximum Fee for Complete Obstetric Care

Total of above-mentioned services ... 50.00

Obstetric Consultation

Services of a qualified consultant may be requested. A consultant must be a licentiate of his respective American Board, or he must be selected from the approved list of consultants established upon recommendations of local medical societies, and approved by the Indiana State Board of Health and the Advisory Committee to the Bureau of Maternal and Child-Health

1. Simple Bedside Consultation ... 5.00
2. Consultant services, including assistance at the time of an operative delivery ... 30.00
3. Consultant services involving major surgery, such as entrance into the abdominal cavity or cesarean section ... 50.00

For services requiring travel in excess of ten miles from the consultant's place of residence, $5.00 may be allowed in addition to the above fees.

PEDIATRIC CARE OF INFANTS UNDER ONE YEAR

Home—First visit ... $4.00
Subsequent visits ... 3.00
Office or hospital visits—First visit ... 3.00
Subsequent visits ... 2.00

Provision for payment will be limited to a maximum of $19.00 for two weeks' care, permitting a payment of $13.00 for the first week and $6.00 for the second week.

For additional care during any single illness, a new request for authorization must be made, stating the indications. Each new authorization will be for two weeks and payment will be limited to $6.00 per week.

Well-Child Supervision

Care of the normal newborn infant from birth to six weeks ... $5.00
For routine well baby visits from six weeks to one year, collectible at $5.00 at 6 months and $6.00 at the year's end ... 11.00

Pediatric Surgery

To include complete surgical care of the infant under one year of age.

1. Therapeutic circumcision (not a part of the routine obstetrical services and not a dorsal-slit) ... 5.00
2. Minor surgery ... 10.00

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* For detailed explanation of revised fees, see the report of the Advisory Committee to the Division of Maternal and Child-Health on page 568.

3. Major surgery, including entrance into the thoracic or abdominal cavities, and surgical treatment of congenital defects *not* otherwise provided for under services for crippled children 30.00

Pediatric Consultant Service

To be provided by approved consultants qualified in the manner described under Obstetric Consultant Services.

1. Bedside consultation 5.00
2. Consultant services, involving minor surgery 10.00
3. Consultant services, involving major surgery as described under Pediatric Care 30.00

ADDITIONAL SERVICES

Surgical Assistant and Anesthetists

In hospitals where surgical assistance is not provided by an intern or resident staff, one medical assistant and one anesthetist may be provided—the fee for any single service, $5.00.

Bedside Nursing

Bedside nursing at the time of delivery in the home, or nursing care during a period of critical illness only, $5.00 per 8-hr. day and 62½ cents per hour for additional time.

Ambulance Service

When ambulance service is necessary *and specifically requested by the family physician*, it will be provided for at the local prevailing rates.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, July, 1943

Diseases	*July 1943*	*June 1943*	*May 1943*	*July 1942*	*July 1941*
Tuberculosis, Primary	7	14	25	2	27
Tuberculosis, Active	218	235	328	134	161
Tuberculosis, Arrested	35	15	72	8	7
Chickenpox	21	150	370	29	12
Measles	344	1133	2248	89	180
Scarlet Fever	59	131	302	39	59
Smallpox	3	5	7	2	0
Typhoid Fever	24	9	8	5	13
Whooping Cough	310	248	320	200	80
Diphtheria	8	13	23	13	9
Influenza	19	6	39	15	28
Pneumonia	12	25	70	15	16
Mumps	44	110	483	14	9
Poliomyelitis	3	1	1	11	11
Cerebro-spinal meningitis	7	23	34	1	2
Rubella	24	65	320	4	4
Undulant Fever	7	6	8	2	0
Malaria	12	1	2	1	3
Rocky Mountain Spotted Fever	2	2	0	2	0
Rabies in Man	1	0	0	0	0
Bacillary Dysentery	14	0	0	0	0

WOMAN'S AUXILIARY

to the

INDIANA STATE MEDICAL ASSOCIATION

ADVISORY COUNCIL

H. G. Hamer, M.D., Indianapolis, Chairman
Ben B. Moore, M.D., Indianapolis
Karl R. Ruddell, M.D., Indianapolis

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Second Vice-President ..... Mrs. Charles Viney, Logansport
Third Vice-President ..... Mrs. Frederick Gifford, Indianapolis
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Archives ..... Mrs. E. M. Shanklin, Hammond
Bulletin ..... Miss Lucy E. Schuler, Kokomo
Exhibits ..... Mrs. M. B. Vancleave, Terre Haute
Finance ..... Mrs. Frank M. Gastineau, Indianapolis
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Legislation ..... Mrs. F. B. Wishard, Anderson
Organization (Northern) ..... Mrs. Herbert R. Ray, Fort Wayne
Organization (Southern) ..... Mrs. James W. Baxter, Jr., New Albany
Pioneer Memorial ..... Mrs. O. G. Pfaff, Indianapolis
Press and Publicity ..... Mrs. Emmett B. Lamb, Indianapolis
Program ..... Mrs. Edgar N. Mendenhall, Fort Wayne
Public Relations ..... Mrs. William E. Tinney, Indianapolis

PRESIDENT'S REPORT

MRS. ARNOLD H. DUEMLING

As an auxiliary to the Indiana State Medical Association, the Woman's Auxiliary endeavors to serve and to assist the medical profession of Indiana. It has often been stated that the health of the nation determines in a great measure the strength of the nation. By our efforts to aid in the work of making strong citizens and building high morale, our organization is taking an active part in the national victory program this year.

At the beginning of my official year a "Victory pocket," approved by our advisory council, was sent to each board member and county auxiliary to give a composite picture of the policy, program, and activities, as suggested and outlined by state officers and chairmen. Included was a directory of the state officers, chairmen, and the twenty-one county presidents who officiate over a state membership of 701. We are grateful to the Indiana State Medical Association for the payment of this printing expenditure.

It has been the policy of our state organization this year not to undertake any one war work as a state project, but to urge all auxiliary members

to support and contribute time, effort, and money through established and recognized war relief societies within their own communities. That auxiliary members throughout the state have contributed generously in civic, welfare, and war activities has been revealed by the survey made by the public relations chairman. We have not competed with other organizations, but have joined hands in united war efforts.

Programs have been planned to fit the needs of the times. Well-attended public health programs for the laity were sponsored by many counties. Among the topics of attractive appeal were: "Public Health and the War," "The Challenge of Peace," "The Vitamin B Complex," and "Cancer from the Laboratory Viewpoint." Interesting health programs were arranged for school assemblies. Health plays, secured from the Bureau of Health Education of the American Medical Association, were presented by students in schools. The radio program, "DOCTORS AT WAR," was widely publicized.

Remarkable advancement has been accomplished in existing occupational therapy and pediatrics projects. Financial aid has been given by many county auxiliaries to the training of student nurses and to special hospital projects, including equipment and supplies.

Generally, there has been much interest in the study of proposed and pending legislation on health.

The state membership total has been decreased somewhat this year because many members whose husbands are serving in the armed forces have changed their residence to other states. Tire and gasoline rationing has caused two counties, whose few remaining members are widely scattered in rural districts, to discontinue regular meetings.

Dues have been received from all counties. Two counties have paid state and national dues for members who are residing in other states because of their husband's service in this war. All auxiliaries are trying to extend personal friendliness and courtesies to wives of doctors stationed in their counties.

We gratefully acknowledge the aid of Dr. Thurman B. Rice, State Health Commissioner, in our efforts to promote more widely the reading of *Hygeia*, the most reliable printed source of health information that the layman can secure. Since May, Dr. Rice has been presenting in the *Monthly Bulletin*, state board of health publication, "previews" of important coming *Hygeia* articles.

It is with deep appreciation that we mention the Auxiliary Section in THE JOURNAL of the Indiana State Medical Association. We consider this space of inestimable value to the auxiliary.

Two meetings of the Board of Directors have been held in Indianapolis. At the first one Dr. N. M. Beatty, co-chairman of the Legislative Committee of the Indiana State Medical Association, was the speaker for the luncheon program. Mr. Thomas A. Hendricks, executive secretary of the Association, spoke at the afternoon session. At the May fifth meeting the board heard as guest speakers, Dr. C. H. McCaskey, president of the Indiana State Medical Association, and Dr. H. G. Hamer, chairman of our Advisory Council. For their help and guidance may we, at this point, express our sincere appreciation to our Advisory Council, to the President of the Indiana State Medical Association, to the Executive Secretary of the Association, and to the assistant editor of THE JOURNAL.

The information gained at the national sessions in Atlantic City and Chicago, and at the national board meetings, was most helpful and stimulating. All requested reports have been submitted to the national auxiliary.

Ten county auxiliaries have been visited this year. State and county reports have been filed as permanent records for this year.

To keep our organization geared for progress and unity, our Constitution and By-laws have been studied for extensive revisions, to be presented at the annual business session in Indianapolis, September 28-29. We feel privileged to have as speakers at the state session Mrs. Eben J. Carey, president of the Woman's Auxiliary to the American Medical Association, and Mrs. Rollo K. Packard, chairman of the National Committee on War Service.

It is because of the splendid cooperation and loyal efforts of the state officers, the state chairmen, and other members of the state board, that the above progress and accomplishments have been made possible this year in Indiana. To them, to all auxiliary members, and to the national auxiliary, I extend my thanks and good wishes.

HISTORIAN

MRS. U. G. POLAND

As a contribution to the Medical History of Indiana, we have continued the compilation of the history of pioneer doctors of this state.

Many county auxiliaries have this year started to keep accurate service records of the doctors from their respective counties in this present war.

The information has been secured and the actual writing of an authentic history of the Woman's Auxiliary to the Indiana State Medical Association has been begun. An effort is being made to have this history finished for presentation at the state business session in Indianapolis.

ARCHIVES

MRS. E. M. SHANKLIN, *Chairman*

As the keeper of the archives, I have pasted clippings concerning the activities of various county auxiliaries under the county names in the state scrap-book, purchased for that purpose in 1940.

A brief history of the organization has been requested from each county auxiliary to be kept as a permanent part of the archives.

BULLETIN

Miss Lucy Schuler, *Chairman*

The total number of subscriptions from Indiana to the *BULLETIN*, the journal of the Woman's Auxiliary to the American Medical Association, numbered fifty-four. This is an increase of forty-eight over the total of last year.

Digests of the more important articles appearing in the *BULLETIN* have been included in the program at the regular meetings of many county auxiliaries.

HYGEIA

Mrs. G. R. Dillinger, *Chairman*

Hygeia subscriptions from the state of Indiana totalled one hundred and eighteen this year. Many of these have been placed in schools, libraries, reading rooms, Army camps, naval stations, factories, and in the hands of Red Cross workers, Civilian Defense authorities, and First Aid students.

As an aid to our *Hygeia* project, Dr. Thurman B. Rice, State Health Commissioner, has been presenting since May in each issue of the *Monthly Bulletin*, State Board of Health publication, a preview of important articles appearing in the next month's issue of *Hygeia*. Many new subscriptions to *Hygeia* should be effected for the new school year by this suggested study reference.

LEGISLATION

Mrs. Fred B. Wishard

The General Assembly of Indiana was in session during this current auxiliary year. Early in the year I stressed the need of a legislative chairman in each county unit. I suggested a plan for the study of pending and proposed legislation on health, state and federal. Each county was also asked to study the practical workings of politics.

The state office supplied me with thirty copies each of important bills. A copy of each bill was sent to each county auxiliary. The name of every county chairman was put on a mailing list to receive the State Legislative bulletins. The county chairmen were referred to the legislative section of The Journal of the American Medical Association and also the section on medical legislation of The Journal of the Indiana State Medical Association.

As State Legislative Chairman I have attended all board meetings and also the national convention. I kept in contact with each county by correspondence. I have also asked for and received help and advice from Mrs. Luther K. Kice, the National Legislative Chairman, and from the State Advisory Council.

It has been a privilege to serve as legislative chairman during Mrs. Arnold H. Duemling's year as state president. Because of her untiring efforts and foresight the auxiliary has moved forward.

ORGANIZATION

Mrs. Herbert A. Ray,
Chairman for Northern Counties

The Allen County Auxiliary has had most enthusiastic meetings with record attendance. Several adjacent counties have their membership with us. No definite organization has been effected by any unorganized northern counties.

By maintaining interest in auxiliaries already organized, we will have a more definite assurance of wider growth when normalcy is again established. Our task now is for every doctor's wife to constitute a force behind the standards for which the doctors have stood. Thus will we become the true helpmate to a profession as high and noble as time itself.

This adds up to a tremendous contribution and it needs the loyalty and interest of every doctor's wife as a member of our auxiliary.

ORGANIZATION

Mrs. James W. Baxter, Jr.,
Chairman for Southern Counties

With our entrance into World War II we have more need than ever before for more auxiliary units in our state. It is my hope that through the splendid work of the active auxiliaries of the state we will be able to influence the unorganized doctors' wives to form new auxiliaries and share in the various programs essential to winning the war and to post-war planning.

PIONEER MEMORIAL

Mrs. O. G. Pfaff

The beautiful bronze plaque in honor of our medical heroes and heroines has been hung in the Library of the Indiana University Medical School. The Woman's Auxiliary to the Indiana State Medical Association has accomplished something for which they should be very proud, in honoring Dr. Bobbs who performed in Indianapolis the first gallstone operation. Jane Todd Crawford, who had the first tumor removed by Dr. Ephraim McDowell, lived in Indiana a number of years and is buried near Sullivan. The first cesarean operation was done by Dr. Lamber Richmond, an Indianian, buried at Lafayette. The Kentucky State Medical Association and the Woman's Auxiliary to the Kentucky State Medical Association have done outstanding work in memory of Dr. Ephraim McDowell and Jane Todd Crawford. Of special interest is the fact that the Governor of Kentucky is authorized by the legislature to proclaim December thirteenth each year as "Jane Todd Crawford Day," to be observed in schools, clubs, churches, and other suitable places with appropriate historical and memorial ceremonies.

PUBLICITY

Mrs. Emmett B. Lamb

Each month articles were sent to The Journal of the Indiana State Medical Association, including reports of the state convention and Board of Director's meetings. Clippings and items of interest were received from many of the county auxiliaries, which in turn were sent to The Journal.

The program for the annual meeting of the Woman's Auxiliary to the Indiana State Medical Association, in Indianapolis, September 28-30, was prepared for publication in the September Journal, as were the annual reports for the October issue.

In order to let all groups know what your county is doing, it is advisable to keep in touch constantly with the state press and the publicity chairman so that she may submit for publication in The Journal the activities and items of interest of your auxiliary.

PROGRAM

Mrs. Edgar N. Mendenhall

Under the headings of Legislation, Public Relations, Education and Social Activities, topics for county auxiliary meetings were compiled and inserted in the state president's kit for county presidents.

A subsequent check of the twenty-one active auxiliaries, to which fifteen responded (thirteen in time to be included in the report), indicated that in actual organization meetings the following types of meetings, in the order listed, were most desired: Social, Legislative, Current Medical Events and Public Relations discussions.

The check revealed participation in Public Relations activities to this extent: one county offered First Aid Course; one county offered Home Nursing Course; one county participated as a unit, in bond and stamp sales; practically all *members* participated in Red Cross and Civilian Defense activities (only one county participated in each as a unit); one county sponsored a Health Essay Contest; two counties used programs based on "Be Informed," an outline of questions and answers compiled by the National Program Chairman; four counties used material available from the American Medical Association.

The number and tone of replies indicated a definite lift in the realization of the aims of auxiliary work and responsibilities.

PUBLIC RELATIONS

Mrs. Wm. E. Tinney

This includes the results of a survey taken of the activities and hours of work given by members of the Woman's Auxiliary in Public Relations activities from June 1st, 1942, to April 30th, 1943.

REPORT OF SURVEY

Civic Organizations: Two hundred eighty-three members reported as presidents of clubs, organization board members, chairmen of committees, practicing physicians, workers in the Community Fund drive, Camp Fire Girls and Girl Scout leaders. Twenty-three members gave 3,172 hours to various social services.

War Emergency Effort: Seventy-four reported 43,828 hours as Doctors Aides, U.S.O., Selective Service and Classes, Nursing, Hospital Service, and Local Army Camp Equipment and Entertainment.

Civilian Defense: Bonds and stamps sold by twenty-nine members amounted to $53,198. One member served as chairman of a group of twelve whose sales for the year now exceeds $100,000. Forty-three reported 2,117 hours as wardens, blackout nurses and fire fighters, defense office, ration board, and O.C.D.

Red Cross: (First Aid, Home Nursing, Nutrition, Staff Assistants, Canteen, Motor corps, Blood Donors Center, and Blood Donors). In this group 128 members reported 9,643 hours.

Red Cross Production: Ninety-two members reported 14,299 hours. Three other counties not included in the preceding figure reported 2,900 hours.

Administration: Twenty-six members gave 1,879 hours.

Summary of Survey: Number of counties organized, 21; number of counties reporting, 12; number of presidencies held by auxiliary members, 47; number of auxiliary members serving as chairmen of committees, 83; number of auxiliary members on organized boards, 122; total number of activities engaged in by auxiliary members, 46; and total number of work hours given to these activities, 77,837.

Many of the Indiana county auxiliaries have held public relations meetings. Among subjects discussed were these: "Public Health and the War"; "The Challenge of Peace"; "Cancer from the Laboratory View Point"; "The Vitamin B Complex" (Technicolor Motion picture).

The Woman's Auxiliary to the Indiana State Medical Association believes that here in Indiana we have alert, active members placed in approximately all the important women's organizations of the state, and, such being the case, represent a great reserve power.

REPORT OF HIGHLIGHTS OF TWENTY-FIRST MEETING OF HOUSE OF DELEGATES OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

Mrs. E. N. Mendenhall, *Chairman of Delegates*

The following persons from Indiana were present at this meeting of the House of Delegates:

National Board Members:

Mrs. A. H. Duemling—State President.

Mrs. George Dillinger—National Chairman of *Hygeia*.

Delegates:

Mrs. C. E. Munk—Kendallville.
Mrs. E. M. VanBuskirk—Fort Wayne.
Mrs. Charles Voyles—Indianapolis.
Mrs. F. M. Gastineau—Indianapolis.
Mrs. M. B. VanCleave—Terre Haute.
Mrs. E. N. Mendenhall—Fort Wayne.

Alternates:

Mrs. C. I. Scott—Sullivan.
Mrs. F. B. Wishard—Anderson.
Mrs. W. H. Howard—Hammond.

Items that make the highlights follow:

1. In spite of travelling conditions, 139 state presidents and delegates from California to New Jersey and from Wisconsin to Texas were present by noon Monday, and 168 by Tuesday morning.
2. In one year's time the Central Office has proved its value.
3. The *Bulletin* has paid for itself and boasts a small surplus.
4. A revisions committee is working on rebuilding or modifying the present Constitution and By-laws.
5. The "Doctors Aide Corps" of Fulton County, Georgia, offers various types of concrete wartime and reconstruction health education work.
6. Two resolutions were presented and referred to the board of the new administration. Both were subsequently adopted and the mechanics for their operation were set up.
   a. War Activities Committee created to plan and direct present participation in war work and in the reconstruction period.
   b. National membership cards to be issued each member upon payment of current dues to facilitate identification and recognition of members permanently or temporarily absent from their local societies.
   c. A pledge of loyalty to the ideals of the auxiliary to be required of each new member and renewed each year by old members.

Guest speakers included the President and President-Elect of the American Medical Association, the editor of *The Journal* and chairman of the National Advisory Committee of the Woman's Auxiliary. All paid tribute to the value of the auxiliary to the medical profession; all urged further organization of auxiliaries and greater activity in preparation for the reconstruction period.

REMIND YOUR PATIENTS
TO GIVE A PINT OF BLOOD TO
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ANNUAL REPORTS FROM COUNTY AUXILIARIES

ALLEN COUNTY

Mrs. E. N. Mendenhall, *President*

Of one hundred wives in Allen County eligible for membership, ninety-two are members. Thirty-nine are wives of men in the armed forces.

Seven educational and social meetings were held with an average attendance of forty-two. Two meetings were entirely social, and five were educational with a social period. At three meetings outside speakers were employed, and in two meetings our own members participated. Four meetings presented pending State and Federal legislation. Material from Auxiliary reports, BULLETIN, American Medical Association and State Journals and Legislative bills was used.

Public Relations activities included a mental hygiene program; posting of "Doctors at War" A.M.A. Broadcast posters; distributing, collecting and mailing to A.M.A. five hundred questionnaires on Women's Health Interests." Six members are active on health committees in other organizations.

The War Emergency projects that members participated in were as follows: Doctor's Aides; U.S.O.; Wayne Hospitality; Enlistment Booths; Classes; Nursing; Local Army Camp equipment and entertainment and panel discussion of care of children of mothers in industry.

Participation in Civilian Defense was as follows: wardens; blackout nurses; ration boards; nutrition committee; Civilian Defense office; bond and stamp sales; and supervision of books and pamphlets on nutrition, placed on special shelf and table in the public library. A list of city clubs with the names of current presidents was compiled. All clubs were contacted twice for nutrition meetings.

Members were active in Red Cross work in First Aid; Canteen; Motor Corps; Home Nursing and Staff Assistants' classes; in production of sewing, knitting, surgical dressings and supervision.

In community and civic projects members served as club presidents, organization board members and chairmen of committees. Volunteer service hours totaled 39,500 up to May 1, 1943. *Hygeia* had seventeen subscribers, ten of which were complimentary to beauty parlors, the detention home and other public reading rooms. The BULLETIN had seven subscribers. Toys, clothing, and equipment were donated to the pediatric departments of two hospitals.

One hundred ninety-two inches of publicity was given to the auxiliary by the local papers.

CARROLL

Mrs. Charles L. Wise, *President*

With so many of our members' husbands in the service, the attendance at our meetings has dwindled to five, but we continued meeting on the second

Thursday of each month. The Carroll County Medical Society meets at the same time.

Each member is very busy participating in various community service projects and Red Cross work.

It is a great pleasure to be recognized by the state organization even though we are so few in numbers this year.

CASS COUNTY

Mrs. H. M. Schultz, *President*

The Woman's Auxiliary to the Cass County Medical Society was organized in 1939. Of the eighteen members, ten have husbands in the armed forces. The meetings are held the third Friday of each month, October to May inclusive, with an average attendance of eight. This year we have held joint meetings with the medical society, having dinner at one of the hospitals. We have our separate business meetings and then a joint program. Usually there has been an outside speaker or a discussion by members of the medical society. Some of the subjects discussed were "The Challenge of Peace," "The Citizen and the State," "The Attitude of the League of Women Voters toward Bills in Legislature, of Interest to the Medical Profession," and illustrated discourses on Vitamins and Vitamin Deficiency, and on Nutrition. One meeting was devoted to medical subjects.

In regard to public relations, we have a very active Health and Welfare organization; regular health examinations of all school children, preschool examination, and nutritional programs in all schools; all members of the auxiliary are active in Red Cross. We have helped in Bond Drives and Service Men's Centers. About 1,000 hours have been given to volunteer service work. A notice of each meeting was inserted in the local papers together with the program. The relationship of the Cass County Medical Society to the Woman's Auxiliary is most cordial.

DELAWARE-BLACKFORD

Mrs. J. C. Silvers, *President*

The Delaware-Blackford County Medical Auxiliary was organized on April 20, 1928. We have a membership of 58. Our auxiliary meets twice a month, with a business meeting held every other month at our dinner meeting, which is held in some member's home. After the business meeting was fold bandages for the hospital. Afternoon meetings are devoted to sewing for the hospital or to Red Cross work. The average attendance is twenty-three, with more coming to the evening meetings. There are no speakers.

One member is in the Nurses Aid course. A few are teaching nutrition. Some are block leaders and some are blood donors. Four of our members are on the Visiting Nurse Board. The total number of hours given to the Red Cross is around 1500 hours; this does not include hours donated to hospital work, which it is impossible to estimate. One of our members is on the Education Advisory Committee for county nutrition, and we also have a member on the Tuberculosis Board. Meetings are reported to both local papers.

ELKHART COUNTY

Mrs. James A. Work, *President*

The Woman's Auxiliary to the Elkhart County Medical Society was organized in 1941. Of a possible membership of sixty, there are thirty-five members and thirteen of these have husbands in the service. One member, Mrs. W. A. Price, was lost by death. There were only three meetings held during the year, and this was for the sole purpose of holding together until the war is over. The members as individuals are to be found on all important boards and committees of community life, possibly the outstanding one being Mrs. J. M. Fleming who has promoted work among crippled children. She is the president of the local branch of the state organization. Members are represented on the boards of the General Hospital, Red Cross, War Chest, and Y.W.C.A.; one of which is surgical dressings chairman and one is knitting chairman for the Red Cross Work, Bundles for America and U.S.O.

HOWARD COUNTY

Mrs. W. R. Morrison, *President*

The membership is now thirty-one, which is three less than last year. We have six members whose husbands are in the armed forces. Meetings are held monthly with an average attendance of eighteen. The programs are along health lines and have proved very educational. We had outside speakers for three meetings. Our members have spent much time in Nurses Aid, Civilian Defense, Red Cross, and ration board, Community Chest drives, Girl Scouts, and nutrition work. One of our members is doing welfare work. Our society has had reports on different legislative bills by the chairman. We also had a Public Relations meeting.

All meetings are reported in the local press.

LAKE COUNTY

Mrs. S. J. Petronella, *President*

The present number of members is thirty-eight. Eight of our women have husbands in the armed forces. There are 240 people who are eligible for membership. Regular meetings are held as follows: General county meetings in October, December, February, April and June. Regular branch meetings are held in November, January, March and May. The average attendance is between ten and fifteen members. The character of the meetings depends upon particular problems at hand and the program varies according to these problems. The meetings for the past year have been of an educational and social nature.

Nearly all the programs for this year have been educational—the subjects including such topics as

(Continued on page xxiii)

(Continued from page 27)

Red Cross, Blood Bank, Victory Gardening, and Textiles and Clothing.

Outside speakers were secured for all meetings with the exception of the annual spring luncheon and the December meeting, which was held in conjunction with the Lake County Medical Society, the occasion being the presentation of the first "Oberlin Award" by the Lake County Medical Society.

Through the individual branch meetings the auxiliary has set about to acquire complete and comprehensive information regarding the medical economic situation. The auxiliary carries out this plan of education by having representatives who are active members in nearly every woman's organization in Lake County.

Public Relations work has been carried on through the members who have worked in war emergency projects that are connected with the varying branches of Red Cross work and have given approximately three hours per week per member to such organizations. The East Chicago Branch took in hand a local problem of help shortage at St. Catherine's Hospital and helped to wrap bandages and mend various hospital supplies.

Civilian Defense activities were carried on in the Gary Branch by the auxiliary at the time the local Mercy Hospital Blood Bank was being established. The auxiliary served refreshments to each blood donor.

Naturally any program in public relations is hardly measureable, especially at the time the work is being done, but the members of the auxiliary have made many and varied contacts with individuals, organizations and institutions, which will undoubtedly prove to be of value as the public relations program of the medical society progresses.

The auxiliary has seen to it that *Hygeia* has been completely distributed throughout the schools.

All of the meetings and activities of the auxiliary have been reported to the local press and to the *Lake County Medical News*, which is the organ of the Lake County Medical Society.

LaPORTE COUNTY

Organized in 1940

MRS. LOUIS MOOSEY, *President*

There are twenty members in our auxiliary, one whose husband is in the armed forces. Fifty women in our county are eligible for membership. A meeting is held every three months, with an average attendance of fifteen. The program at our meetings has been educational, with the members of the group participating. On several occasions an outside speaker was procured. We have five members who are active workers on health committees in other organizations. We have cooperated with our county health officials in promoting a Grade A Milk Ordinance. Many of our members participate in Red Cross Work, War Bond Sales, the promotion of salvage campaigns, and the ration boards. About 250 hours were contributed to these projects.

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MADISON COUNTY
Organized in 1927
Mrs. A. D. Erehard, *President*

Meetings are held once a month from October until May, with an average attendance of ten members. We have thirty-five members. Last year we had fifty-three members. Nineteen of our members have husbands in the armed services. The programs at the meetings were educational. We depended on outside speakers for two meetings, and six meetings were presented by our own members. Legislation and Public Relations were our main topics outside of war efforts at meetings. Several members gave talks to different clubs and organizations about First-Aid, Home Nursing, home canning and nursing in the hospital. The Guild has paid off $5,000 pledged to the building of a new wing to the hospital in one year, and we all sew at the nurses home one day a month.

MARION COUNTY
Mrs. F. M. Gastineau, *President*

The Woman's Auxiliary to the Marion County Medical Society has tried to carry on the program outlined by our state and national auxiliary.

Seventy of last year's members have husbands in the armed forces, and since many of them have moved to join their husbands at the posts, we feel that the drop of membership from 191 to 172 was unavoidable.

While the legislature was in session, Thomas Hendricks addressed our auxiliary meeting and informed us of the pending bills pertaining to the medical profession.

Our Public Relations chairman sent out the questionnaire suggested by the state. Although our card index is not complete, 15,000 hours of work in civic and War Emergency work was reported. Many of our doctors' wives are instructors of classes in First Aid, Home Nursing, and Nutrition, while many others are selling bonds and working on Civilian Defense boards. This is only a fraction of the work accomplished by our members and we hope that next year this record will be completed and brought up to date.

The auxiliary sponsored a Public Relations meeting in March that was well attended.

At the request of our medical society, the auxiliary made a survey of all doctors of Marion County for the Procurement and Assignment Service. More than twenty women helped to fill out the questionnaires as there were more than eight hundred doctors and interns in Marion County to be interviewed. We welcomed this opportunity to demonstrate our ability to give tangible assistance to our doctors in this practical manner.

MARSHALL
Mrs. C. R. Graham, *President*

Our regular meetings are held on the first Wednesday of each month, when our husbands meet. We begin our meetings with a luncheon at 12:30 noon. War demands and difficulties have caused a decrease in our membership. Our interest in the auxiliary continues along with our war service activities. Our friendly associations through the auxiliary seem to mean more to us this year than ever before.

PORTER
Mrs. Carl Davis, *President*

The Woman's Auxiliary to the Porter County Medical Society was organized May 28, 1940. There are fifteen members. Four members have husbands in the armed forces. The meetings are held monthly, except June, July, August, and December. These usually have been dinners, followed by the program. In the interest of Public Relations, Dr. Bauer of the American Medical Association, addressed the high school students, the Woman's Club, and the Medical Society and Auxiliary in November. The programs have been educational. Three were presented by outside speakers and two by our own members. The material used was from *Hygeia* and legislative material sent out by the state program chairman.

SULLIVAN
Mrs. I. H. Scott, *President*

In February, 1942, the Woman's Auxiliary to the Sullivan County Medical Society was organized. There is a membership of twenty-one of a possible thirty. There have been eight meetings, with an average attendance of ten to fifteen. They have been varied, with several outside speakers. Red Cross sewing has also been done at some of the meetings, and some meetings have been of a social nature.

The auxiliary has been interested chiefly in nutrition as a health program, considering it the greatest need of our county. Members of the auxiliary have participated in Red Cross and rationing board work. War Bonds have been sold, and members worked during the "blackout." About ten members reported 591 hours of work from June, 1942, to March, 1943. We have promoted the sale of *Hygeia* wherever possible, giving sample copies and contacting interested people. Our philanthropy consisted of giving toys to the hospital for children confined there. The meetings have been reported to the local press.

TIPPECANOE
Mrs. G. R. Donahue, *President*

(This is a report for Mrs. A. C. Clauser, retiring president.)

Our auxiliary has had monthly dinner meetings followed by a program. These regular programs included talks by guest speakers. "Physical Fitness and Health Legislation" were among the topics discussed. Current news items have also been a frequent feature of our programs.

There has been one death in our membership this year; Mrs. W. A. Spencer, of Wolcott, Indiana, died July 11, 1942.

VANDERBURGH

Mrs. A. M. Ratcliffe, *President*

Since we are now in the process of being reogganized, there is no check as to actual membership, although one hundred wives are eligible. There are twenty-nine whose husbands are in the armed forces. We have five meetings yearly, beginning in September, with an average attendance of twenty. Formerly our meetings were purely of a social nature, but we plan short business sessions with strictly medical and pertinent subjects.

Last year we purchased $150 in War Bonds with money which was idle, due to the fact that there had been no demands for our Scholarship for Nurses or Pre-Medics at the Evansville College. In regard to the health needs of Vanderburgh County, the situation is as follows: There has been a decided increase in population before the war and now. The fact that a large part of the metropolitan population is outside the city limits, it cannot all be served by municipal water and sewage systems. There is a notable lag in the increase in the number of hospital beds in proportion to the increase in population. The hospitals have no isolation facilities. There is a need for endemic malaria control. The county auxiliary should carry on cancer control and cooperate with the health department.

VIGO COUNTY

Mrs. Leon L. Blum, *President*

The Vigo County Auxiliary was organized in 1927 and now has a membership of fifty-six. This is twelve less than last year, which represents the wives of the physicians in the armed forces. The meetings have been held approximately every two months, with an average attendance of thirty. The programs at the meetings have been educational. At the annual dinner it is usual to have an outside speaker. This year a Terre Haute authoress spoke of her new book on social problems in the local community. At one meeting a member of the auxiliary had a very fine survey of the pioneer doctors in Vigo County.

As the Occupational Therapy project is a large one, it is the only health program the auxiliary sponsors, but at least 90 per cent of the members are active workers on health committees in the other community organizations. Our members have all responded to the local war projects, such as making surgical dressings, knitting for the Red Cross, assisting in the sales of War Bonds, serving on the rationing boards and giving blood donations. As an auxiliary group, the members have assisted in the community survey on housing for children of defense workers, by tabulating the results. The community chest is supported both materially and with actual working hours by our members who are also active on many boards of local welfare organizations.

The Auxiliary has followed a policy of strictest cooperation with any health laws suggested by the medical society. There has been an increase in *Hygeia* subscribers. Subscriptions have been placed in many public places where it might be read.

This year, as in the past, the philanthropic work centered around the Occupational Therapy project. In former years an occupational therapy instructor was employed for part-time work in both hospitals. This year, having been able to interest other organizations in the work, the instructor has been retained on a full-time basis, and we have been able to establish an out-patient department with our own quarters, consisting of three rooms at the Public Health Nursing Association. This work has grown to be an important factor in the community health program and has greatly benefited the hospitals and patients who have received this instruction. Of course, the Occupational Therapy project has been made successful by the interest of the doctors. In general, despite the decrease in membership, this has been a highly successful year.

NORTHEASTERN INDIANA ACADEMY OF MEDICINE

Mrs. J. R. Nash, *President*

The Auxiliary to the Northeastern Indiana Academy of Medicine was organized February 29, 1940. The present number of members is twenty-three. Four of these have husbands in the armed forces. Only one meeting was held this year at which time it was decided to discontinue our meetings for the duration of the war. As to Public Relations, we have distributed ten health plays among the schools, which are to be presented by the school children. Three members are active workers on health committees in other organizations. One member has sold $700 in Bonds and Stamps; another member is County Chairman of the Volunteer Special Services of the A.R.C.; one of our members is chairman of Women's Defense Council in her county; one is chairman of the Garden Survey in her town, and another works through her church to send boxes to the boys in service. Approximately 100 hours in volunteer service work have been given.

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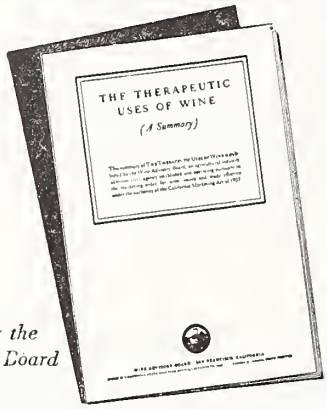

Published by the Wine Advisory Board

An entire generation of physicians lost touch with the medical lore of wine in the United States following the first World War. Actually, however, few other substances have been as widely recommended. This monograph, which summarizes the pertinent scientific literature in the interest that fact be separated from folklore by the application of impartial analysis, will prove of interest and value to specialists in many fields, and to the general practitioner as well.

A section on wine as a food is included. The actions of wine on the gastro-intestinal system, the cardio-vascular system, the genito-urinary system, the nervous system and the muscles, and the respiratory system are discussed. The uses of wine in diabetes mellitus, in acute infectious diseases and in treatment of the aged and convalescent are dealt with. There is a section on the value of wine as a vehicle for medication. Also an important section on the contraindications to the use of wine. Those who wish to pursue the subject further will find an extensive bibliography.

This review results from a study supported by the Wine Advisory Board, an agricultural industry administrative agency established under the California Marketing Act, and has been sponsored by the Society of Medical Friends of Wine.

Members of the medical profession are invited to write for this monograph. Requests should be made to the Wine Advisory Board, 85 Second Street, San Francisco.

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THE MODERN TREATMENT OF PROSTATIC CANCER—A RATIONAL BASIS FOR DELAYED HORMONE THERAPY*

REED M. NESBIT, M.D.†

ROBERT H. CUMMINGS, M.D.†

Ann Arbor, Michigan

Fifteen months ago a follow-up study was conducted on seventy-five cases of prostatic carcinoma treated by orchiectomy in the University Hospital, and the data was published in the December 5, 1942, *Journal of the American Medical Association.* The present report is concerned with a subsequent follow-up study made on the same series of cases, and twenty-one months or more have elapsed in each case since operation. The advantage of following a closed series of cases until the death of the last survivor is obvious, and although this series is numerically a relatively small one, we believe that any obvious trends that are observed in its study might be of value in treating future cases.

All of the patients in this series, excepting four, had infiltrating carcinomata. Forty-three of the seventy-five cases were suffering from pain, cachexia or other clinical manifestations of advanced cancer, and the remaining thirty-two cases all had obvious primary lesions but were suffering no subjective disturbance from metastases even though some of them were shown by x-ray examination or by phosphatase determination to have bony involvement.

CLINICAL RESPONSE TO ORCHIECTOMY

Pain. The most spectacular feature of these cases is the early and satisfactory relief of pain, which occurs in from twenty to seventy-two hours in most instances in which relief is obtained. We have observed two or three exceptions to this general rule however, in cases in which relief of pain came on very gradually after a period of several weeks. Forty-two** of the cases here reported complained of pain on admission. Five of the patients obtained no relief whatever following operation, while twenty-seven obtained complete relief of pain and ten obtained partial relief.

Weight. Eighteen patients complained of significant weight loss on admission to the hospital. Thirteen of these regained their weight losses; however, thirty-eight additional patients had appreciable gains in weight following orchiectomy, some gaining as much as fifty to sixty pounds. There are undoubtedly many factors which contribute to these postcastration increases in weight.

Urinary Obstruction. Fourteen patients complained of difficulty in voiding, or complete retention of urine, on whom orchiectomy was performed and on whom no operation for the relief of prostatic obstruction was carried out. Five of these patients were placed on suprapubic drainage at the time of orchiectomy, and all of them were eventually able to urinate satisfactorily so that the cystotomy tubes were removed. At the time of orchiectomy nine patients complained of significant difficulty on urination, and all have experienced more normal urination subsequent to castration.

Transverse Myelitis. Two patients were admitted to the hospital complaining of severe metastatic pain and complete transverse myelitis below the middorsal level. Both had complete relief of pain and complete return of neuromuscular function following orchiectomy, and both patients have sub-

* Read before the General Meeting at the ninety-fourth annual session of the Indiana State Medical Association at Indianapolis, September 29, 1943.

† From the Department of Surgery, University of Michigan, Ann Arbor, Michigan.

** Six cases are here included that evidenced pain from local neoplastic extension, but these cases are not included in the group of forty-three cases of advanced neoplasm herein reported.

sequently had a recurrence of symptoms and have died.

SUMMARY OF RESULTS

Ten of the patients in this series derived no benefit whatever from orchiectomy; five died within six months from the time of operation, while four died during the ensuing fifteen months, and one is still alive twenty-two months following castration.

Sixty-five of the patients were improved clinically by orchiectomy, but many of these have derived only temporary benefit. Duration of clinical improvement in the delayed failure group has been variable, and we have found no criteria for predicting the prognosis in any case. Comparison of data compiled fifteen months ago with present data is as follows:

At the time of the first report there were twenty failure cases, including five dead, and since that time twenty-one additional cases have had a recurrence of symptoms. One third of the patients have now died of their primary disease, twenty having died during the past fifteen months.

At the present time thirty-four of the patients continue to enjoy a favorable response to orchiectomy. These are all free from pain and cachexia or other subjective manifestations of extensive carcinoma, and in most instances the objective signs of their disease, i.e., size of the primary tumor, hardness of the prostate gland, x-ray evidence of metastases, and serum phosphatase levels, have remained at a measurably improved level since operation. However, all of the favorable response cases, with four exceptions, continue to reveal unmistakable clinical signs of prostatic cancer, a fact which affords additional evidence to suggest that orchiectomy provides only temporary suppression of neoplastic activity. Since the control of prostatic cancer activity by hormonal modifications as now practiced is only temporary, and since consequently the resulting clinical improvement is palliative and not curative, one might logically raise the question as to the most favorable time for instituting this form of therapy: Should castration be performed in all cases as soon as the diagnosis of prostatic cancer is established, or should it be delayed until the clinical manifestations of advanced malignancy have developed? In answering this question the following facts should be borne in mind: prostatic carcinoma is notoriously variable in its rate of growth and spread, and many patients having bony metastases survive comfortably for years without any treatment whatever. Undoubtedly hormone therapy suppresses the neoplastic development of both early and advanced cases, and in each instance it produces a corresponding prolongation of life, but it does not permanently retard the growth of the primary tumor nor does it prevent the occurrence or the eventual progression of metastases. Likewise, castration in early cases does not preclude the eventual development of terminal pain and cachexia. It therefore would appear rational to delay the institution of hormone therapy until pain or cachexia develop, for only by this means can the patient hope to derive the dual benefits of this treatment, viz., prolongation of life by suppression of carcinogenic activity and relief of pain. The employment of this therapeutic agency at a time prior to the onset of symptoms would appear to be premature, for then it might deprive the patient of significant clinical benefits. It seems apparent, therefore, that accurate timing is required for the most economical expenditure of hormonal control.

The present series of seventy-five cases has been broken down into two groups for the purpose of comparative study—those who had no symptoms of advanced disease at the time of castration comprise Group No. 1, while those having pain, cachexia, et cetera, make up Group No. 2. They are best summarized by chart.

	Group No. 1 Cases	Per Cent	Group No. 2 Cases	Per Cent
Alive and well	22	68.7	12	28
Failure cases living	6	18.8	10	24
Failure cases dead	4	12.5	21	48
Total	32	100	43	100

In Group No. 1 the high survival rate is not unexpected or surprising. Bumpus[1] studied one thousand cases of prostatic cancer at the Mayo Clinic in 1926 and found that the average survival period of the entire group was thirty-one months from the time of diagnosis. The incidence at this time of 31.3 per cent of failure cases in Group 1 clearly demonstrates that castration does not constitute prophylaxis against the occurrence or development of metastases.

Additional data compiled on Group No. 2 are of particular interest in evaluating this method of treatment. The twelve patients who are living and well are all twenty-one months or more post operative, the longest period being thirty-six months. The ten failure cases in this group who are still alive enjoyed a favorable response for an average of 11.4 months. The terminal stage in delayed failure cases has been of short duration in most instances.

The average duration of life in the group of twenty-one who died was 11.3 months, although seven of these survived less than nine months. These latter figures gain added significance when compared with those compiled by Bumpus,[1] who found that when metastases had occurred at the time of examination, two-thirds of the patients died within nine months. An advantage of hormone therapy is indicated by the fact that only seven of our patients (16 per cent) having metastases which were producing pain at the time of orchiectomy, failed to survive the nine-month period. The sur-

[1] Bumpus, H. C., Sr.: *Surg. Gynec. & Obst.*, **43**:150-155, (Aug.) 1926.

vival of 84 per cent as compared with 33 per cent in the Bumpus series, at the stated interval of time, is obviously to be credited to advance in our methods of treatment.

In this series there has been no effort made to compare the efficiency of estrogenic hormone therapy with that of castration. The relative worth of the two methods can be appraised only by a study of controlled parallel series. We are at the present time treating a series of cases with stilbestrol and will report the results observed in that group at a later date.

In the present series there were two patients who obtained relief of pain following castration, who had previously failed to derive any benefit from the ingestion of stilbestrol, 3 mg. daily for several weeks. Likewise, there are now two of the orchiectomy delayed failure cases that were relieved of their recurrent pain following administration of the estrogenic hormone.

CONCLUSION

A second follow-up study conducted on a series of patients treated by orchiectomy for prostatic cancer gives continued evidence of the value of this form of treatment.

Forty-five per cent of the patients remain free from symptoms twenty-one to thirty-six months after orchiectomy, but twenty-one cases previously reported as showing favorable response have had recurrent symptoms of advanced disease, and several of these are dead. The increasing incidence of delayed failure in this series suggests that eventually all cases may fall into this category.

It is evident that hormone therapy increases the life expectancy of patients with prostatic cancer by causing a suppression of carcinogenic activity for temporary but varying periods of time, and this temporary control of the neoplasm is accompanied clinically by a period of relief from symptoms resulting from the malignant disease.

It would seem logical to conclude that the maximum benefit to the patient may be derived by delaying hormone treatment until indicated by the onset of symptoms arising from advanced or metastatic lesions. Only in this manner can the longest period of palliative relief be assured.

ANATOMICAL DISSECTION OF PAUL deKRUIF'S BOOK, "KAISER WAKES THE DOCTORS"

FLOYD T. ROMBERGER, M.D.

LAFAYETTE

Any book written in the popular sense which castigates, derides and holds up for ridicule before the laity a group of highly educated and truly earnest professional men who have done as much for the public weal as have the physicians of America, year in and year out, decade after decade and generation after generation, automatically invites examination and investigation. Such a book is "Kaiser Wakes the Doctors." It is written relative to the medical care rendered by Dr. Sidney Garfield to Henry Kaiser's workmen at Desert Center, Grand Coulee and the Richmond, California, shipyards.

Superficially read, Paul deKruif's story is entertaining and appears to bear out the point that unlimited medical and surgical care and unrestricted hospitalization is available for everybody everywhere for a few pennies apiece per day. However, the plans in effect were rather limited in geographical area, were carried out under conditions of wartime stress, and the experienced physician, matured by many years of medical practice, readily detects many deceitful and fanciful distortions of fact in the book which could lead to the belief that the illustrious deKruif is putting forth a superprophet's propaganda—for profit to himself!

Many extremely important details are overlooked, or they are omitted entirely because they do not fit in with the arguments and exhortations. As a minor example, for instance, no stress whatsoever is made of the fact that every participant in the several plans was fully and gainfully employed at high wages, nor are mortality and morbidity statistics given. Apparently nobody died. All lived on forever in perfect health. Utopia indeed!

Accordingly, just as a student of anatomy dissects the cadaver in order to familiarize himself with human anatomy, so it is proposed to use the scalpel of matured experience in medical affairs to dissect this book, in order to lay bare and expose for view and intimate study just a few of the many flagrantly false, misleading and half-truth statements therein. It will be done most kindly and with courteous restraint—but justly. The intelligent reader is asked to judge for himself.

Agreeing most heartily and in true sincerity with the creed often voiced by ex-Governor Alfred E. Smith, when he said, "I do not oppose men; I oppose principles," it is not intended to indulge in acrid personalities. However, since the evangelistic deKruif, in this book takes unlimited liberties with the personal pronoun "I," and since he wields

his vitriolic pen most ruthlessly, come friend or come foe, and whereas he now annoints and perfumes himself as a self-appointed savior for the medical profession, a super-Moses to lead the American physician into the Promised Land of medical Utopia, it becomes necessary to inquire, just casual-like and not even profoundly, into his professional background to determine, if possible, whence springs this Messiah? Whence came his self-opinionated qualifications to speak for or against the medical profession? Where and how has he acquired his knowledge of medical practice?

The dissection need not be extensive. Obviously, only superficial incision will suffice—not on deKruif the individual, but on deKruif the symbol, the type, one of the many who, unable to effect evolution from within, attempt revolution from without by needling the time-honored precepts and principles of a profession and an organization which by their unselfish interest in and by their untiring efforts for the public weal have made American Medicine what it is today—the best in the world—a part of our American way of life and real living!

Just Who Is Paul deKruif?

From *Who's Who* we learn that Paul deKruif was born in Zeeland, Michigan, in 1890, and that he graduated from the University of Michigan with a B.S. degree in 1912. After four years of graduate-student teaching at this institution, he was granted a Ph.D. degree in Bacteriology, just *one* of the many *elementary*, basic medical studies, in 1916. He served as a lieutenant, later as a captain, in the Sanitary Corps of the United States Army during World War I. He was employed as a bacteriologist by the Rockefeller Institute in 1920-1922. Then, from his own words we quote, (*Kaiser Wakes the Doctors*, page 5) "As a reporter for the past twenty years, I have been telling millions about new discoveries to ease pain, to cure their formerly hopeless sickness, to save their lives." By his own definition, then, he is a reporter and, as we see it, not a physician. No, he does not possess the necessary qualifications!

DeKruif writes entertainingly and convincingly, albeit in the opinion of many, even among his friends, quite recklessly as to factual data and oftentimes quite imaginatively as to implications and innuendo. Newly-converted to an idea, his writings, both past and present, give the distinct impression that the more recent his enthusiasm the more likely is his imagination to run unbridled. Equally as often he promises his readers much too much—the cruelty of a hope not always attainable.

He is the author of a number of popular books and many articles in the slick paper magazines. His favorite device or knack or skill in writing is to extol or to exalt or to preach about the quite worthy accomplishments and the real achievements of others, most usually physicians, scientists and workers in research. He fawns upon the headliners. He bows in obeisance before the doers of this world. So far as is known he has never contributed a single worthwhile research for the advancement of science or for the betterment of humanity in his own field, and it is only too apparent that deKruif loves to bask in the sunshine and to stand in the reflected glory of the hard-earned and well-deserved renown of those who have won real fame by beady sweat and unceasing toil through the midnight hours. This is easy to discern.

Solicitous for the "medical have-nots," he boasts in this recent book (page 5), "For myself and family there has been knowledge of where to go for this new powerful science. There has been the wherewithal to pay the hospitals and the doctors."

Plugging for the "common man," he lives in comparative luxury near Holland, Michigan, on what most doctors would consider to be a magnificent estate, for, while never having practiced medicine, yet Paul professes to know all about it from, necessarily, very casual and quite superficial investigation—then brings profits to himself by writing about it!

Paul deKruif is not an M.D. He is not a physician. No, he does not possess the necessary qualifications! Perhaps he would love to be one. It is hardly a disgrace. But never having put forth the real effort and the hard study and the relentless toil so necessary to obtain a medical degree, he is most justly and quite summarily denied the precious and the sobering privilege of medical practice. Obviously, he is not a member of a county or state medical society, nor does he belong to the American Medical Association. He is not a member of a hospital staff. No, he does not possess the necessary qualifications. His acquaintance, therefore, with these bodies must be, again of necessity, very superficial and quite largely of the touch-and-go variety. Thus, too, he must confess absolute, complete and total ignorance of the many, many truly scientific and highly educational programs presented from week to week, month to month, and year by year before the more than six thousand hospital staffs and before the more than three thousand organized county medical societies in America, which actively and continuously and progressively carry on with the most intense and sincere efforts in the behalf of the public weal throughout every one of the forty-eight sovereign states of this our own and great America. His book displays a sublime ignorance thereof. He just does not know.

Paul deKruif never has delivered a baby. He never has stood before an operating table, anxious and nerve taut, with a patient's life in his hands, alertly and skilfully guiding the scalpel in a delicate surgical procedure. No, he does not possess the necessary qualifications. He never has sat hour by hour by the bedside of the sick and the dying; nor has he at any time arisen from his warm bed in the wee hours of the night to respond

to the cry for help coming from a palatial residence or a humble cottage, unknowing whether the patient is full-pay, part-pay, or no-pay, yet dragging his weary body onward by sheer will power, be the weather fair or foul. No, he does not possess the necessary qualifications!

It is not doubted or even questioned in the least, upon the facts presented, that, together, Henry Kaiser and Dr. Sidney Garfield gave very excellent medical and surgical care to the workmen. They are to be congratulated most heartily and commended with all sincerity by physicians everywhere, including organized medicine, for having met and solved a most difficult situation, however limited the geographic scope. And, so far as Doctor Garfield is concerned, the dissection will preserve every grace and every professional courtesy; for each true physician has and is entitled to his own ideals and his own motives. The scalpel will concern itself only with methods, objectives and results. Just a few! However, the book is filled with various catch-phrases, such as ". . . days grim with medical neglect . . ." and "medical have-nots" and ". . . medical care not attainable . . .," and thus tends to place the honest, hard-working and deserving physicians of America under the false glare of the money-motif, at least by innuendo, as compared with the humanitarianism of Kaiser and Garfield.

Let the scalpel inquire into the real truth and also into the injustice of this assault! Describing the financial setup of the projects, the book says:

Quotations: (Page 4) ". . . there is no money consideration between the sick man and his physician." (Page 43) "They did not skid on the old slimy trail of the dollar." (Page 101) ". . . he (Garfield) had begun to be thrilled by what happened to his doctors when the cruel barrier of money was lifted between them and their patients."

Introducing Dr. Garfield

Not so, however, Dr. Garfield himself! A thrill may be a very complex entity. What about Garfield's financial interest? Scalpel, proceed with the dissection. Lay bare other factors in the record. On page 33 he says: "If you could get them to kick in a nickel a day from their pay, on a health plan, I could make it go." Later this was *adjusted upward* to seven cents per day, and fifty cents per week (pages 56, 74 and others). Then deKruif writes (page 34): " . . . by a *shrewd stroke* Garfield simplified his collection of fees for the medical care of the industrial accident cases. He persuaded the workmen's compensation companies to pay him a flat rate, *a percentage of all the premiums* they took in from the contracting companies. *First* it was 10 per cent; *later* this was *hiked* to 17½ per cent. . . ." And, ". . . *money began to roll in*. . . ."

The quotations speak for themselves. The dissecting scalpel uncovers fee-splitting reduced to an exact science. It resembles what might be called, in football terminology, "a two-way double-split pass," *with Dr. Garfield on the final receiving end from two directions simultaneously* and carrying the ball for touchdown: the contracting company to the worker (wage) and to the insurance company (premium), two-way pass; then both of them to Garfield, double-split pass. The financial score at the end of the first five years (page 41): "By 1938, when all three of these desert construction projects were done, Garfield had not only paid good salaries to his physicians, nurses, technicians and hospital staff, but he'd also paid off all equipment, owned all three hospitals, free and clear of debt, and had accumulated a reserve of $150,000." Most physicians gladly would settle for just one hospital and for one-half of those accumulations—for a lifetime of service instead of five years. Thanks to the book for the new vista on professional accumulations. He who runs may read, also he who sits and thinks! Each may formulate his own conclusions.

Henry Kaiser and his sons, in their building projects and ship-building activities, have performed miracles of construction which have won the admiration and the gratitude of every living man, woman and child in America today. And, the history of their monumental efforts will stand as a testimonial to their memory for the wonderment of the entire world for all time. So, too, Dr. Sidney Garfield, insofar as he contributed by keeping Kaiser's men healthy, well and happy, deserves a great deal of credit which no thinking physician would deny him nor detract one whit from his very able accomplishments.

The vitriolic pen, however, dipped in artful innunedo, acid criticism, with a conglomeration of questionable and misleading statements belittles and attempts to smear the great work which has been done in the past by organized medicine; that which is being done right now by individual physicians everywhere under the extremely trying circumstances of the present emergency, and that which all physicians and their organized bodies will continue to do for generation after generation. The matured physician needs no *wakening* to foresee the only too obvious probability of deterioration of the public weal, in the years to come, should the art and science of medical practice be turned over to those politically adept or to the demagogue whose only qualifications are inexperience and shallowness of observation. Medical practice, in all its phases, belongs to the physicians.

Quotations: (Page 26) "Finishing his residency in the Los Angeles County Hospital, Sidney Garfield began by being bitterly disappointed. He wanted to join a group of specialists. He wanted to teamwork with them, using his superb skill and training." (Page 54) "Then Edgar (Kaiser) promised the men he'd see that they had the best doctors and hospitals." (Page 55) "What Garfield now went out to organize was a miniature Mayo Clinic. It was made up of keen young men of various medical and surgical disciplines—*all just out of residencies in high-grade hospitals.*"

Comment: That these high-grade hospitals even existed as such is almost entirely due to the intensive educational programs carried out over a period of many years by the American Medical Association. Every one of these young physicians owes, absolutely and directly, his superb skill and training to the American Medical Association, which assists in, directs, and even organizes these training schedules—then, to a certain degree, demands that all recognized hospitals continue to maintain their high standards in equipment, in personnel, and in training.

That these young men just out of their residencies were the best obtainable under the circumstances is not questioned in the least by anyone who knows even a smattering of the American Medical Association's educational program. That they were the "best" when compared with all the physicians in all America might call for just a mild lifting of an inquiring eyebrow. There are many very smart, very scholarly, very highly-educated, very well-trained physicians, possessed with very good medical and surgical judgment because of *experience* who are practicing medicine in America today.

Skill does not always and inevitably follow exposure to good training. Training alone or skill alone, or even the two combined, hardly suffice. They both must be smoothly blended with good judgment. Good judgment in medical and surgical practice comes only from *experience*, usually over a period of years. With this Doctor Garfield will agree, having now completed his first decade of medical practice. He will be more firmly in accord with the premise after his second decade, and still more firmly after his third decade. This logic easily is discernible to the intelligent reader. Sound medical practice is more than just the bricks and mortar in hospital walls, the beds, the fixtures, the surgical appliances, and the Venetian blinds. It is all those things—plus!

Quotations: (Page 99) ". . . Garfield's staff had grown to a group of sixty well-trained physicians and surgeons. . . ." (Page 107) ". . . the volume of treatments given the Kaiser workers is enormous. In the month of January, 1943, at the Field Hospital and aid stations, Garfield's doctors administered 116,285 treatments. . . ."

Seven-minute Treatments.

Dissection: Sixty doctors gave 116,285 treatments per month. Accordingly, each doctor gave 1,938 per month, an average of 64.6 treatments per day, working thirty days each month. Figuring on an eight-hour day, that means eight treatments per hour, each treatment thus being of seven and one-half minutes duration.

The questions reasonably might be asked: Is it in the better interest of the public weal for patients to receive seven and one-half minute treatments for such serious ailments as deKruif mentions in his book: cancer, heart disease, stomach ulcers, hernias, complicated fractures, appendicitis, x-ray treatments, and the like?

Then, there are a few most enlightening passages in the book:

Quotations: (Page 116) "Who in *hell* then would take care of the men's wives and children?" (Page 130) ". . . to expose the patient-doctor relationship that from time immemorial had been the doctor's own *damned* business."

Dissection: Nice language! Unsuspected beauty of expression for such a virtuous and uplifting book! Probably sounds better than it looks in print! The thinking reader easily might ask: Is it really necessary to damn and hell one's way to popularity? Or, is it frustration shadow-boxing and attempting to overawe an imaginary foe by damning and helling? When poverty of expression descends to such depths, then, indeed, contemporary writing and literature have sunk to a pitifully low estate. It seems a little far-fetched and difficult for intelligent people to believe that the medical profession, its honesty, its integrity, and its unremitting and unselfish effort for the betterment of the public weal, established by many generations of service to mankind, now has arrived at the point where it must be needled into doing its duty to suffering humanity by the use of parlor-pink or purple-oathed profanity.

The physicians of America always have, do now, and always will take care of wives and children. Their record is acid-etched upon the tablets of time.

Quotations: (Page 85) "This was what haunted Garfield: the invisible hand from Chicago." (Page 117) ". . . the doctors union, the American Medical Association." (Page 124) ". . . bodes ill for the machinations of organized medicine's invisible hand." (Page 154) ". . . the reactionary double-talk of organized medicine's invisible hand."

Comment: The American Medical Association (A.M.A.) was organized and had its first assembly in Philadelphia in 1847, ninety-six years ago. It is not a union. It is a federation of its component state and territorial societies, each of which has jurisdiction within its own state or territory. The objectives of its organization and its purpose are stated in classically simple language in its Constitution: "The objects of the Association are to promote the science and art of medicine and the betterment of the public health."

The A.M.A. does not possess an "invisible hand." Invisible means: "that cannot be seen; not visible by reason of smallness, distance, or physical constitution."

DeKruif's invisible imagination not only cloaks this hand with visibility, he also endows it with function; he speaks of its "machinations." Still further, this hand engages in "double-talk." What a hand! Absurd! Fantastic!

Machinations is defined: "The act of contriving a secret or hostile plan; a device to accomplish a

purpose, especially an evil one." Surely it is asking a great deal of the thinking men and women of America to believe that the A.M.A. indulges in evil purposes. They know better.

A.M.A. Well Aware of Problems.

Against these barbs, and against all other of the many venomous accusations in Paul deKruif's book, the A.M.A. needs no defense whatsoever. Its record for the past century speaks for itself, to those who know or to those who care to inquire. The doors of its headquarters, at 535 N. Dearborn Street, Chicago, are open every business day, alike to physicians or to interested laymen. Visitors are welcome. They are shown every courtesy and may study at leisure and in detail how this great and wonderful Association is conducted for the betterment of the public weal. The A.M.A. needs no *awakening* regarding the art and science of medical practice as it affects the public welfare.

Suffice it to say that never in the medical history of the world has there existed a system of medical practice which has rendered a service to the public as efficient, as thorough, as conscientious, as unselfish and as scientific as has been given to America by the American way of medical practice.

The A.M.A. *is* the American physician; the American physician *is* the A.M.A. They are one, inseparable. Together they have established standards of achievement in the art and science of medical practice which are far beyond even reasonable approach by any other nation in the world. That is as of today! If the American people want something different for the future, then let them say so. American physicians will respond with their best. Of this there can be no doubt!

The A.M.A. has studied hundreds and hundreds of different prepaid medical-care plans, group-insurance plans, industrial-insurance plans, lumber-company plans, and mining-company plans—far, far too many to mention them in detail. Hundreds of these plans now are operating with A.M.A. sanction and blessing, some of them for a good many years before Paul deKruif was born. Briefly, the measuring rules are: Is it in the better interest of the public weal? Can the plan give the best care obtainable under the circumstances? Has the patient freedom of choice of the physician? What is the patient-physician relationship? Within such classically simple boundaries there scarcely is need or room for "machinations."

No living physician of today can predict what medical practice will be like ten, twenty, or fifty years from now. The future of everything is uncertain. But of this every reader may be assured: Steeped in the highest traditions of democracy, imbued by generation after generation of the soundest idealisms of medical practice, American physicians will not be found wanting. And, they will need neither demagogues nor politicians to tell them how, when, and where to practice.

George Washington wrote:

"Nothing but experience can demonstrate golden dreams to be the vision of only an uninformed or undigested imagination.

"Liberty like life needs be lost but once. If the citizens of the United States should not be entirely free and happy, the fault will be their own."

Thomas Jefferson wrote:

"Were not this great country already divided into states, that division must be made, that each might do for itself what concerns itself directly and what it can so do better than a distant authority. Were we directed from Washington when to sow and when to reap, we should soon want bread."

A fair proposition: One of the great advantages of this union of sovereign states, which we call America, is that any certain proposed reform, such as Dictatorship, Nazism, Socialism or the like, may be carried out in one or two states to see how it works before it is foisted or imposed upon all forty-eight states. Well and good! Which states will volunteer to be the guinea-pigs for this medical Utopia so artfully described, yet so superficially and so totally without experienced depth of perception? The forefathers of this present generation of physicians learned their lessons only by bitter experience; then, drawing upon their observations and upon the wisdom of the ages, they, not we, formulated the idealisms of our American way of medical practice.

Speak up States! Don't be bashful! Show how it is done over a sufficient period of years, so that both the good effects and the evil by-products may be analyzed. Then hold a national referendum. Let the people decide! That is the democratic process! Perhaps some or all of these things are better than what we call the American way. Perhaps we are overlooking something in not adopting or aping other nations' ideologies—along with their kneeling heritages, their historic ruins, their poverties, and their bankruptcies.

Let's be fair!

BUY UNITED STATES
DEFENSE BONDS

MASS TYPHOID FEVER IMMUNIZATION—INTRADERMAL METHOD

MAURICE KAMP, M.D.*

New Albany

The water supply of this area arises from relatively shallow surface water sources and is very prone to contamination. The Ohio River, with its periodic flooding of the banks, often inundates the shallow water supplies. Aside from the larger cities where the safety of the water supply is carefully maintained, the inhabitants often consume drinking water of questionable safety. During the winter and spring of 1942-1943, the Ohio River overflowed twice and one other time caused considerable overflowing of its smaller tributary streams. On all three occasions there was considerable contamination of individual drinking water supply sources. While the last big flood occurred here in 1937, there have been frequent high water periods which caused tributary stream overflow with consequent drinking water contamination.

Case reporting is notably poor, but even using this as a guide typhoid fever is prevalent. This report covers a mass immunization of preschool and school groups by the intradermal method started after the last flooding of the Ohio River.

There is a sufficient background of competent work to warrant the use of the intradermal method for initial immunization against typhoid fever. Tuft, Yagle, and Rogers[1] found that this method produced a satisfactory immunological response. Van Gelder and Fisher[2] found in a study of five hundred and eighty children that the intradermal route immunization produced as high an H agglutinin titer as that obtained by the subcutaneous route. There was not a similar increase in the O agglutinin titer by the former method, but his dosage was smaller than used in this study. Tuft[3] confirmed this finding, but since the O agglutinin titer was low in the control group also, he recommended that the dosage be increased. He postulated that the skin is an important immunologic organ participating actively in humoral antibody production.

That the skin participates in antibody production is shown in the work concerned with re-enforcing of immunity subsequent to initial typhoid immunization. Longfellow and Luippold[4] feel that re-injection with a single dose of 0.1 cc. typhoid vaccine intradermally constitutes a reliable method of renewing immunity to typhoid fever. Their conclusions were reached using the mouse-protection test for estimating the immunity furnished. Siler and Dunham,[5] using the same mouse-protection test, confirmed these findings and felt that the re-immunization against typhoid fever of previously immunized persons with one intradermal dose of 0.1 cc. of typhoid vaccine produced an immediate immunological response comparable to that following the original immunization consisting of three weekly injections.

Dosage

The dosage used was 0.1 cc., 0.15 cc. and 0.2 cc. of commercial triple typhoid vaccine given intradermally at weekly intervals. The triple typhoid vaccine contained typhoid 1,000 million, para-typhoid A 500 million and para-typhoid B 500 million bacilli per cc. The solution was injected by means of a tuberculin syringe and a short bevel hypodermic needle on the flexor surface of the forearm. Alternate arms were used, with the first injection being given about two inches above the wrist and the second and third just below the antecubital space where looser subcutaneous tissue allowed the larger amount of fluid to be received without too much painful pressure. In order to avoid the Arthus' phenomenon of local tissue damage which occurs if antigens are injected too closely together within a short period of time, the third injection was spaced at least four inches away from the first one which had been given on that same arm.

Age

Children of both sexes, ranging in age from two to eighteen years, were included in this study. That "the child can endure a larger dose than the adult," as Toomey[6] pointed out, was confirmed in this study. The dosage given was the same regardless of age or sex. Reactions, discussed more fully later, were less frequent among the preschool group, ranging in age from two to five years, than in the older groups.

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TABLE I

CLASSIFICATION OF PRESCHOOL AND SCHOOL CHILDREN ACCORDING TO NUMBER OF INJECTIONS RECEIVED FOR ALL AGE GROUPS

No. of Injections Received	*No. Immunized*	*Percentage*
1	50	5.2
2	53	5.6
3	843	89.2
Total	946	100.0

TABLE II

CLASSIFICATION OF CHILDREN ACCORDING TO AGE AND NUMBER OF INJECTIONS RECEIVED

Age 2-5	*No. Immunized*	*Percentage*
1 injection	0	0
2 injections	3	10.7
3 injections	25	89.3
Total	28	100.0
Age 5-10	*No. Immunized*	*Percentage*
1 injection	25	4.9
2 injections	35	6.8
3 injections	455	88.3
Total	515	100.0
Age 10 and Over	*No. Immunized*	*Percentage*
1 injection	25	6.2
2 injections	15	3.7
3 injections	363	90.1
Total	403	100.0

Reactions

There were three constitutional reactions in the entire series. All occurred in adolescent girls about six hours after the injection. These general reactions consisted of malaise, chill, usually one and followed by a fever ranging up to 102°. This reaction rarely lasted more than four hours. In these three cases with general reactions in this series, the girls came back to school on the day following their reaction and all completed the series of injections.

Local reaction was common and occurred in the majority of the children. This consisted of an area of erythema about the point of injection. The size of this erythema varied from one to three cms. in diameter. Accompanying the area of redness there usually was some local soreness which persisted from one to three days.

A small papule may persist at the site of injection for some time, occasionally for as long as six months. This papule is painless, blue at first and later becoming white. The papule, about the size of a match head, did not break down in any case. There were no infections in this series. These papules occurred in 20 per cent of the cases. Local reactions in the younger age groups were low. Complaint on the part of the younger children varied in direct proportion to the concern expressed by the parents accompanying them. On the whole, there was less complaint on the part of the younger groups than from the adolescent groups. The expression of the complaint factor concerning the local reactions was determined by the degree of emotional instability in this group.

Results

There were nine hundred and forty-six children immunized in this program. Examination of Table I reveals that close to 90 per cent completed the series of three injections. A more detailed breakdown, as shown in Table II, reveals that the number completing the immunization series was fairly constant in the different age groups. There was no element of compulsion involved so far as completing the series was concerned. Educational talks were given in the classrooms by the county public health nurses before the immunization program was started. Since the injection series could be terminated at any time by the children for any reason of their own or of their parents, the relatively high percentage of the group who took the full course may be used as a criterion of the lack of pain and discomfort involved.

Informal conversation with the high school groups, most of whom had been immunized by the subcutaneous route following the flood in 1937, elicited the information that the method used in this study produced far less discomfort.

Summary

A group of nine hundred and forty-six preschool and school children have been immunized by the intradermal method. Commercial triple typhoid vaccine was used in the dosage of 0.1 cc., 0.15 cc. and 0.2 cc. given at weekly intervals.

Sufficient work has been done to warrant using this method as a means of initial typhoid fever immunization.

The advantages of this method for mass immunization are: small amount of vaccine used, marked absence of general reactions and a minimum discomfort associated with the local reactions. Ninety per cent of the group completed the course of injections, which may be taken as an expression of the feasibility of this method for typhoid fever immunization.

ABSTRACT: IMPLANTING SULFONAMIDE POWDER IN CLEAN OPERATIVE WOUNDS

In view of the favorable results obtained in more than six hundred consecutive cases which he reports in *The Journal of the American Medical Association* for August 7, J. Albert Key, M.D., St. Louis, says that "I believe that the practice of implanting sulfonamide powder in clean operative wounds should become routine in all civilian and military hospitals. This is especially true at this time when, owing to the emergency resulting from the war, so much surgery must be done under abnormal conditions and the incidence of operative infection may be expected to be unusually high."

THE PROBLEMS OF WOMEN IN INDUSTRY*

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One cannot open a newspaper today without learning that a factory engaged in war production is to employ women at a job heretofore held only by men.

To women workers the present crisis has brought extraordinary recognition. Employers are united in praising their ability and power to increase output. Applause instead of pre-war discouragement greets those who venture into these new fields. New inventions, mechanization of industry, the division and subdivision of labor tasks, as well as the centralizing spirit of the day, has made it possible for these women to enter the shop and factory.

In the past society as a whole was interested in woman chiefly as a wife and mother, and only incidentally as an industrial factor. Today, on the other hand, the effect of this departure from the natural inclination and destiny of women is a problem that has become of interest to and is being studied by physicians, nurses, welfare workers, sociologists, economists, management, labor and governmental officials. In dealing with this problem there is need for much more detailed study as to job requirements and to women's peculiar qualifications. Also what importance, if any, are we to attach to the physical and mental differences of women employees? Furthermore, what is their relation to manufacturing productivity, to efficiency, to plant morale, and to co-operation with management?

When women normally outside the labor force are brought into industry, the problem is more than one of technical methods per se. In addition to the need for physical fitness, it also becomes a psychological and social problem. We cannot divorce ourselves from these items because they can create episodes which affect the health and well-being of these women workers. The process of readjustment to war production, as demanded today, is not entirely smooth, and adverse effects may fall particularly heavy on women. This means that unless we anticipate and analyze whatever differences exist, our problems may increase in scope. We cannot and should not merely look upon the problem as an "endurance test" for women.

In order to make the entry of women in factories as easy and successful as possible, certain problems affecting women in industry must receive special consideration. While this may appear to be entirely a managerial responsibility, there are many items to be considered which fall directly or indirectly into the field of medicine, and management does consult its medical advisors before employing women.

TYPE AND SELECTIVITY FOR EMPLOYMENT

With the exception of jobs requiring heavy lifting and great physical strength, women can be employed on most any job. They have certain peculiar qualifications for painstaking, tedious and repetitive work requiring great patience, and for finger dexterity. In such jobs they exceed the production of men. While women may lack experience, they do not lack mechanical ability.

Jobs, however, must be tailored to meet the physical limitations of women. Women are generally shorter in stature, which means that workbench heights may have to be lowered. Women's reach is shorter, which limits her stretching to levers, racks, et cetera; her hands are smaller, thus limiting the size and weight of hand tools.

WEIGHT LIFTING

It has been recognized since women first worked that they should not be allowed to lift heavy loads or do work requiring great physical exertion if they are to be efficiently employed.

The United States Women's Bureau states that some authorities have found that lifting aggravates menstrual troubles. This agency also reported a Russian investigation which revealed menstrual troubles prevalent among 69 to 78 per cent of the women who did lifting and carrying, as against 26 to 39 per cent among those in occupations not requiring weight lifting.

There is a great variance of opinion relative to the safe maximum lifting load for women. In England it has been reported that women are allowed to lift a load equivalent to one-third their own weight. The conditions under which the lifting is to be done must be known before any safe limit can be set. Certain factors to consider are:

a. The ratio of load to body weight.
b. The number of loads lifted.
3. The size and shape of the load.
d. Distance load is to be carried.
e. The levels of lifting.
f. Degree of rotation of the body.
g. Method of lifting.
h. Physical condition and size of the woman.

Some who employ large numbers of women have set thirty to forty pounds as the maximum.

The United States Women's Bureau has recommended that lifting loads be limited to 35 per cent of the body weight. This appears to be excessive for a ninety to one hundred pound girl. The best procedure to follow would be to prevent lifting wherever practical, and to limit it to a minimum

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wherever it is necessary. Every job requiring lifting should be carefully analyzed to provide and develop mechanical lifting and conveying measures. Where lifting must be performed, the women should be properly instructed in lifting methods. Women are naturally awkward lifters, mainly through lack of practice. They should be taught the safe and best way to carry weights.

TRAINING

Many of the women who apply for jobs will be totally unfamiliar with factory work, the operation and the handling of machinery. The instructors should be selected on the basis that they can impart their knowledge to others and should be selected for their ability to explain things clearly, for pleasing personality, tact, patience, sympathy and consideration for the rights of others. Wherever possible, unusually masculine men (the gorilla type) should not be selected to instruct women. However, instruction should be given first by men, then by women who become most proficient.

The training program of women must be built around certain facts. Women, physically and physiologically, are quite different from men. They are different by nervous reactions, temperament, mechanical aptitude and experience, dress, and physical abilities. Women's extremes of emotion and temperament are much greater than men. It is important to consider these differences in placing them in industry, otherwise they will continue to warm the seats of the industrial medical department or first-aid room with a host of complaints.

HOURS OF WORK AND FATIGUE

The role of fatigue in industry is a most complex problem. It is influenced not only by hours of work and monotony, but also by atmospheric conditions, improper illumination, posture, and a host of other factors. There are no direct tests that can be applied for the measurement of fatigue and one must, therefore, rely on such indirect tests as accident frequency, production rates, sickness absenteeism, et cetera.

Since it is generally accepted that women are more susceptible to fatigue than men, extra effort should be made to eliminate, or at least reduce, this accident-producing factor. Tired workers have slower reaction times, and since it is claimed that the greatest majority of accidents are due to human and not machine factors, the control of fatigue is of prime importance in any accident-prevention program. Vernon of England found that when the work week was increased from 54½ to 75 hours, women suffered 287 per cent more accidents, while for men the accident rate increased only 120 per cent. A former British Minister of Labor who visited our state declared that "women begin to slip as factory workers after a 43½ hour week."

The disabilities to which women are liable are readily caused or accentuated by irregular hours and habits. These conditions may become chronic and render the subject unable to continue her work, or prejudice her future health.

While there has been a striking trend toward the shortening of working hours and the lessening of fatiguing factors, under emergency powers those benefits and standards slowly achieved are often interrupted. To meet the war-production demands, in many states the need for longer hours is met by issuing emergency permits after a careful investigation that such a need exists. These have a limited time and are revocable.

SEATS FOR WOMEN WORKERS

Neither continuous sitting nor continuous standing is to be recommended, although a chair should be provided for each woman employee and she should be encouraged to use it. Anatomically ill-adapted seats, as well as the orange box or shipping crate, should be discouraged. A chair should be selected that is suitable for the type and nature of the work performed. The work should be laid out, if practicable, so that the employee can continue her work as well while standing, in order to allow some change in the working position.

A few years ago a study of industrial seating revealed:

1. Providing of chairs and tables suited particularly to the occupation increased production in a rubber factory to such an extent that sixteen girls performed as much work as twenty had previously.
2. A British investigator concluded that women polishing metal could increase their output as much as 32 per cent when special seats were provided. In muscular work, output has been found to increase from 2 to 13 per cent when workers could alternate sitting and standing.

REST PERIODS

It has been proved that total work accomplished in a given period is progressively increased by periods of relaxation. Employees doing piecework, who have protested against the imposition of compulsory rest pauses at regular intervals, have not infrequently been astonished to find that their output thereby has been increased, while fatigue was at the same time reduced. A ten-minute period should be provided during the morning and afternoon shifts. Some operations, on the other hand, may require a five minute rest period out of each hour.

Rest periods should be provided for all women workers, particularly those engaged in monotonous and repetitive work. The time allotted for such periods is best determined by individual plant study. Rest periods should not be made to serve as a substitute for other necessary health and safety measures. They cannot in themselves offset fatigue, but are only one of the several measures for its control.

PROHIBITED EMPLOYMENT

Only a limited number of employments are prohibited to women by legislation. Most of these

prohibited employments are concentrated in the laws of a few states, and many are prohibited or regulated in not more than one state. Many of the states have only a single prohibition or regulation.

Michigan recently issued special regulations based upon provisions in the law regarding the employment of women. Women are prohibited from employment in foundries, except in core rooms, and also from employment in the handling of the following substances: lead, benzene, carbon disulfide, mercury, arc welding and dry-grinding wheels. In addition, there is a general regulation prohibiting the employment of women "in any other type of employment disproportionate to their strength or in any way detrimental to their morals, health or potential capacity for motherhood." Some states have blanket laws declaring it unlawful to employ women under conditions detrimental to their health and welfare, but no employment is named in the Acts and none is specified by any authorized agency. In twenty-two states and the District of Columbia there are no laws regarding the employment of women in any specific occupation.

Federal legislation concerning the employment of women in manufacturing industries is chiefly contained in the Fair Labor Standards Act and the Walsh-Healy Public Contracts Act. There are few specific regulations concerning the employment of women in these Acts.

NIGHT WORK

The human mechanism is designed for working by day and sleeping at night. Any change in this normal routine should occur only in cases of utmost necessity and should be carefully planned to eliminate the disadvantages as far as possible.

Most employed women have responsibilities outside their hours at the place of business; whether married or single they bear some share in the care of the home. The midnight to 8:00 a.m. shift is not recommended. There is considerable medical testimony as to the deleterious physical effects of night work. In most cases this occurs much sooner in the woman than in the man, not only because of her different physical make-up, but because her work does not end when she leaves the factory. Manifold household duties and cares await her on her return home. When night work becomes necessary, some companies provide transportation for women, as well as other conveniences and protection, especially if the plant is difficult to reach by standard means of transportation.

Make sure that the individual is able to work on the night shift. A careful study should be made of the effects on the individual, and those not suited to night work should be relieved of the night shift. They should not be assigned if there is a history of anemia, respiratory disease, digestive disease, or nervous disorder.

WORKROOM ENVIRONMENT—GENERAL CONSIDERATIONS

Working conditions, such as the prevention of over-crowding, suitable washing and drinking facilities, adequate ventilation, temperature and humidity control of the air of workrooms, as well as efficient methods of heating and lighting, are all factors of special importance. If the working conditions are poor, selecting the best women and paying them the highest wages will not suffice. Workrooms should also be generously lighted with the illumination properly selected and placed. The sort of toilet facilities often found in factories where men work will be offensive to the women employees, now that they are being hired.

Rest rooms, comfortably fitted and cheerful, should be provided. Many factories, in order to afford mental and physical relaxation, provide music, either by radio or Victrola.

A matron should be employed where groups of women work, to look after the general welfare of the female employees. If possible, this matron should be a nurse. Rest rooms and washrooms should include coin-in-slot dispensers for sanitary napkins. There should also be a lunchroom, cafeteria, or restaurant which will furnish the worker a well-balanced meal during reasonable hours of the work day.

WORKING ATTIRE—CLOTHING

Now that women are employed, it becomes apparent that work-clothes should be provided to assure safe employment. This should include suitable uniforms, caps, gloves and shoes. The type of clothing to be provided depends upon the type of work to be performed.

The basic requirements of work-clothes for women are:

1. The clothing should not be fitted so loosely as to be caught in moving machinery.
2. The material should be attractive, durable and not readily inflammable.
3. The material should not collect dust and dirt easily.
4. Consideration should be given to the temperature of the workroom.

No wide skirts, loose sleeves, flowing ties or frills of any type should be worn about any moving object. Slacks with tucked-in blouses or coveralls have been found effective.

If there is danger of fire, cotton is preferable to rayon or other inflammable cellulose fabrics. Lightly-starched fabrics are generally more fire-resistant than those that have not been so treated.

The wearing of earrings, necklaces, bracelets and wrist watches should be prohibited at machines.

Long hair is a serious problem, for static electricity can cause serious accidents at machines and many scalps have been denuded. Therefore, caps, turbans or nets should be provided.

Proper shoes are important. A common cause of accidents among women is tripping on stairs as a result of catching the heel. For comfort and safety, low-heeled, closed-toe shoes should be required. Low-heeled shoes prevent turned ankles and fatigue, and closed-toe shoes prevent injuries from stubbing

the toe, or the entrance of small particles of metals or other materials. Safety shoes are recommended for preventing toe injuries.

Many women now entering industry will have hands extremely sensitive to the many industrial materials and objects. The handling of sharp and rough parts will result in considerable hand and finger injuries. Small finger guards can be employed in handling small rough parts. Safety-glove manufacturers should be consulted for the proper type of glove to employ. Gloves made of synthetic materials, such as pliofilm, vinylite and koroseal, are more suitable for protection against liquid materials.

EMOTIONAL STABILITY

It has been stated that the emotional adjustment of the female employee to her new environment is often more difficult than the physical adjustment. There are many factors which are responsible for this episode. Some women are extremely afraid of large moving equipment and are, therefore, in constant fear of it. Others will become nervous and possibly emotional from the noise in some factory operations. Still others may become extremely upset after an accident has occurred or at the sight of blood.

Women personnel advisers are of material assistance in this phase of adjustment. Periodic interviews should be adopted for the first six months of work for this purpose.

LIVING AND SOCIAL CONDITIONS

Since women entering many of our defense industries will be drawn from surrounding communities and other distant areas, they will require clean and wholesome places to live. A careful canvass of neighborhoods and families should be undertaken and boarding houses investigated before housing women workers. Social interests of an uplifting character should be encouraged. Employers can do much to see that the right conditions are provided, otherwise the plant physician may be faced with a major venereal disease problem.

CHILDREN OF WORKING MOTHERS

These children must be cared for while their mothers work. They must not be parked with careless neighbors or turned over to greedy "baby farms," neither to foster parents whose only interest is in the fee they get. West Coast aircraft factories are beginning to supply their own facilities. The Douglas Aircraft Company has established a day nursery to accommodate five hundred children. In Seattle seven nurseries were opened in public schools. The same holds true for industrial areas on the East Coast and the Middle West. There are now many community and official agencies prepared to offer aid in this undertaking. That a woman can be a more productive and safe worker if she is assured that her home problems are being taken care of is the point stressed by many war industries.

OBSTETRICAL AND GYNECOLOGICAL CONSIDERATIONS

Recommendations recently have been published by the Children's Bureau and the Women's Bureau of the United States Department of Labor with regard to pregnant women in industry.

The Committee on the Health of Women in Industry, of the Section on Obstetrics and Gynecology of the American Medical Association, is now in the process of formulating recommendations covering this problem. It sets forth that at the time of the regular pre-placement examination and history, special inquiry should be made concerning the breasts and obstetric and pelvic conditions. A thorough examination of the breasts or any of the pelvic organs may elicit an early but a serious lesion.

A thorough pre-employment evaluation of the pelvic organs will permit better placement of the employee, as well as the discovery of early significant and serious disease or altered physiologic states which are still subject to correction.

The pregnant or lactating individual, as well as those concerned with sterility or habitual abortion, should be particularly protected against lead, mercury, benzol and its homologues, explosives, x-ray, radium and other dangerous agents. Any substances or agent which might injure the liver or kidney may precipitate extremely serious complications during pregnancy or in relation to pregnancy and lactation.

Menstruation

Many women have little or no incapacitation during menstruation. Those with mild distress may be benefited by the avoidance of unnecessary physical and strenuous activities for a few days prior to the expected period.

Severe cases of dysmenorrhea may require further attention. However, adequate rest facilities at the plant are desired and a brief rest may cause only a slight interruption in the day's work rather than a loss of several hours. In a few instances efficiency may be so greatly lowered at the time of the menstrual period that the individual should not work.

Menopause

Because of nervous and vasomotor instabilities, increased excitability and increased susceptibility to fatigue, women in the climacteric may need special consideration. This is particularly so where there is disturbing noise, excitement, or tension, as well as maladjustment to employment, to associated workers, to supervisors, or to environment.

Women during this period should be particularly evaluated for placement in industry and should be urged to profit by periodic examinations.

Pregnancy

Employment is common practice in the first half of pregnancy, or perhaps longer, depending upon the individual's physical tolerance to the type of work. Each pregnant employee should have indi-

vidual consideration by her obstetrician and by the plant physician as to the hours and duration of the employment, as well as to type of employment.

Pregnant women should have a regular shift of employment in order that their lives may be regulated for the greatest amount of rest and regular sleep. If the employment is improper or the patient cannot physically tolerate the work, the patient must stop work or be shifted to some other division in the plant.

It is not considered desirable for pregnant women to be employed in certain types of occupation:

1. Occupations that involve heavy lifting or other heavy work.
2. Occupations involving continuous standing and moving about.

Pregnant women should not be employed in the following types of work during any period of pregnancy.

1. Occupations such as punch-press work.
2. Occupations involving exposure to toxic substances which are considered extra hazardous during pregnancy, e.g., benzol, toluol, lead, et cetera, and other toxic substances that exert an injurious effect upon the blood-forming organs, the liver, or the kidneys.

It is believed that the discontinuance of employment in the last trimester would benefit many prospective mothers.

It is recommended that each employee inform the proper authority in the industry of her pregnant state within the first trimester; that she obtain a statement from her physician to the effect, (1) that her pregnancy does not contraindicate her working, and (2) that she may work not longer than a given period of pregnancy. If contraindications to work arise, the employee's physician should notify the employer.

The patient should not return to work until three months after delivery, and then only when her physician notifies the employer that she may return. If her return to work at that time is inadvisable because of her own condition or because her baby actually needs her at home, then she should request a further extension of time.

SICKNESS AND ABSENTEEISM

Physicians know that the burden of sickness varies with sex. To what extent the four strains of female sex-life, namely, puberty, menstruation, childbirth and the menopause, contribute to the problems of women in industry as workers, we may perhaps not answer directly; however, we cannot deny that these peculiarities may play a part and do exert an influence.

Absenteeism among women will result from occupational and non-occupational illnesses and for personal reasons. It has been reported that sickness absenteeism among women in industry is high. A daily absence of 10 per cent is not unusual. Their annual rate exceeds that of the men by approximately 60 per cent, and their disability periods are correspondingly higher.

In Great Britain, where the postal system constitutes a fair cross-section of one group of industrial workers, the chief medical officer reports that among the chief causes of absence, nervous disorders of a psychoneurotic type constituted 7.5 per cent for males and 13 per cent for females.

In an attempt to explain the high absenteeism rates for women, it is possible that the finer constitution of their nerves enables them to feel earlier, and before they are perceptible outwardly, those ailments and changes which may be going on in their system, and however indistinct such a feeling may be, they are more impelled by it than men to complain against a threatening evil.

Considerable absenteeism data is available, which is based on peace-time employment. The Boston Edison Company analyzed all disabilities of one day or longer during 1933-1937, inclusive. This study found a 75 per cent greater respiratory disease rate for women than men. The illness rate from digestive diseases was 298.3 per 1,000 for women, as compared with 148.3 per 1,000 for males. Non-respiratory and non-digestive diseases caused over three times more absenteeism among women than among men.

Statistics on the absenteeism of female workers during war periods are not too abundant. Some information is available, but general conclusions can not be drawn from a few individual experiences. Recently, the Division of Industrial Hygiene of the Wisconsin State Board of Health released information from an absenteeism study of fifteen plants, covering 6,817 males and 675 females. It was found that the men averaged 2.82 days lost per year for all illness, and that the women averaged 5.70 days.

A warning to public and industrial health workers which must not be overlooked concerns itself with the present sharp increase in tuberculosis reported in England, and which has been especially great among women in general—particularly among young women. Deaths from pulmonary tuberculosis increased by 6 per cent between 1939 and 1940, and in 1941 were 10 per cent higher than in 1939. Deaths from tuberculous meningitis increased by 40 per cent between 1939 and 1941.

WOMEN AS ACCIDENT HAZARDS

While as a rule men are the victims of the most serious injuries, in general, from 1930 on, an increasing proportion of the persons injured in industry were women.

The fact that women seldom have had the exposure to things mechanical which men have had before they enter industry means that women are not as conscious as men of the possibilities of injury from causes that may be somewhat obscure. Women can work as safely as men with proper training and effective machine guards. However, since women's hands are smaller, machine guards should be set closer and substandard guards should be eliminated. Power machines cause two-thirds

of women's permanent partial injuries and the punch press is responsible for half the machinery accidents. Therefore, a vigilant machine-guarding program should be instituted. It must be remembered that the reaction after an accident will be much greater among women.

Next to machines, falls are a major source of accidents to women. The United States Women's Bureau, in analyzing the accident statistics of eight states, found that more than one-fifth to one-third of all injuries to women were due to falls. It was also found that falls resulted in longer periods of disability than do other types of accidents to women.

TOXIC MATERIALS—OCCUPATIONAL DISEASES

It is impossible to tell how much illness and death have resulted from the poisons employed in manufacturing operations and processes. Detailed medical studies covering this phase have been lacking.

In the opinion of many, women have proved to be more susceptible than men to the action of industrial poisons. There are two substances that apparently affect women much more seriously than men. These are lead and benzol. Other materials believed to more severely affect women are TNT, carbon tetrachloride, carbon disulfide and mercury. There are other industrial processes and operations which are unknown or in their infancy, and may, as time goes on, add to the many sources inimical to health. However, the prohibition of women's work in occupations exposing them to these dangers will not solve the entire industrial problem if male workers are similarly exposed and affected. Industrial hygiene plant surveys will materially assist in uncovering sources hostile to health, and the results can then be integrated with the industrial medical program. In this way the early manifestations of physiological upsets can be detected and the data correlated.

It is generally accepted that women are more susceptible to dermatitis than men. This is verified in part by the occupational disease awards of several State Workmen's Compensation Boards:

	Per Cent of Dermatoses in all Disease Cases	
	Men	Women
Connecticut	56.6	74.6
Illinois	37.2	74.6
Massachusetts	69.0	95.0
New York	47.2	57.1
Wisconsin	40.7	65.1

Radium dial painting has in the past been performed almost entirely among women. This work has greatly increased, and care must be exercised to insure protection of dial painters. An excellent booklet by the United States Bureau of Standards describes in detail the engineering and medical control measures that are necessary for the safe conduct of this work.

There are other occupational diseases which have occurred among women workers, but they are also prevalent among male workers. However, there is a tendency toward a greater frequency of these diseases as women become more deeply absorbed into the war production program.

Neuritis of the hand, wrist and arm, and other diseases resulting from repetitive activity, has become prevalent among women as a result of the wide use in industry of portable hand tools of pneumatic and electric types.

During emergency periods, such as the present, there is a tendency to revert to the more hazardous materials because of the fact that they generally do an excellent job. For example, benzol is now seeing wider use than previously because of the difficulty of obtaining toluol and xylol. War production requires great vigilance on the part of industrial health workers, for our production planners often relax health precautions.

We will need women in industry; of that there can be no question. We are going to need them in increasing numbers. Now is the time to prepare and develop plans and policies, so that as we continue to utilize their abilities, we will be able to proceed along logical, fair and well-planned lines. This will prevent needless waste, sickness, accidents, production upsets, abnormal physiological and psychological episodes, as well as social problems.

ABSTRACT: ELECTRICAL SKIN TEST DEFINES AREAS AFFECTED BY NERVE INJURIES

A simple, accurate and practical method of mapping the areas affected by nerve injuries is described in *The Journal of the American Medical Association* for July 3 by Curt P. Richter, Ph.D., and David T. Katz, M.S., Baltimore.

The method, which has been described before, employs the resistance of the skin to electrical currents applied by means of a small electrode. By means of this test the authors mapped the affected areas of skin in ten patients with ulnar lesions of recent and long standing, which were produced by accidental cuts, intentional stabs, compression from fractures or by bomb and shell fragments.

One of the chief advantages of this method is that its successful use does not depend on the cooperation of the patient. In cases of suspected malingering the electrical skin resistance method supplies a more reliable test than the patient's own report. In cases of severe fractures or other injuries which may involve the nerves, the test should make it possible to find out at once the exact place and extent of the nerve involvement.

This method should help to determine the success of nerve sutures and to follow the progress of repair. It should also be possible to determine which procedures speed up nerve regeneration and which retard it by the use of this test.

INTESTINAL PARASITISM IN SELECTED GROUPS OF RURAL RESIDENTS OF INDIANA*

WILLIAM HUGH HEADLEE, PH.D.†

WILLIAM B. HOPP, M.S.

INDIANAPOLIS

INTRODUCTION

The question of the status of human intestinal parasite infections in Indiana has been under investigation by the senior author and his associates during the past few years (Headlee,[1, 2, 3, 4, 5]; Headlee, Kmecza and Cable,[6]; Kmecza,[7]). During the summer of 1940 an opportunity was afforded to study selected groups of strictly rural residents. Because of limited personnel and time, and the necessity of traveling many miles to contact these individuals, the number of persons examined was not large. The data were obtained from a different group of people than had been examined previously from the Indiana area and contribute knowledge that aids in an interpretation of the status of intestinal parasite infections in this area as a whole.

It was believed by the writers that such a survey would be more successful if the persons concerned could be contacted through some organization of which they were already a part. The Indiana Unit of the Farm Security Administration was such an organization, and they were willing to co-operate to a considerable extent in helping us make contact with their constituents. Work was done in Montgomery, Warrick and Pike counties. Montgomery County individuals were studied as a unit, and the Warrick and Pike County families were studied as a unit at a later date. There is some difference in the way the work was conducted, and they will be treated first as separate studies and then the data will be combined (Table III) in order to make it more applicable to rural Indiana in general. The entire study in Montgomery County and the field work in connection with the survey of Warrick and Pike counties, contacting the people, explaining the purpose of the survey, and collecting the stool specimens for examination were done by the senior author. The junior author did the laboratory examinations in connection with the Warrick and Pike counties study.

PROCEDURE AND RESULTS

1. *The Montgomery County Survey.* The population group under consideration was from borrower families of Montgomery County, Indiana, i. e., families receiving loans from the Farm Security Administration. At a late date it was learned by the senior author that a clinic was being held by the authorities of the Farm Security Administration, in order that these families might have the benefit of a thorough physical examination. Consent was obtained to make examinations for intestinal parasite infections, and the work was begun a day after the clinic had opened.

Stool specimens for microscopic examination were obtained from the individuals through the co-operation of the clinic established at Crawfordsville and through the field workers of the Farm Security Administration. The stool specimens were collected in half-pint, round, liquid-tight, cardboard containers. During the first day of work these containers were handed to the individuals visiting the clinic and were collected at their homes on the following day by the senior author. In all other cases the containers were distributed to the individuals by the field workers on the day previous to the visit of these persons to the clinic. The families brought the specimens to the clinic, and they were then taken to the Parasitology Laboratory, Department of Biology of Purdue University, for examination. In the Montgomery,

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* From the Department of Biology, Purdue University, Lafayette, Indiana. This study was supported by funds from the Purdue Research Foundation, for which the writers wish to express sincere thanks. The writers are also appreciative of the help and co-operation received from several administrative officers and field workers of the regional and local organizations of the Farm Security Administration, especially Dr. E. H. Shideler, Dr. B. S. Dyar, Mr. V. H. Davison, Mr. Chester Hill, Mr. Burchard Ashworth, and Mrs. Ursula Brown. A previously published abstract included a summary of these data. (Headlee, W. H., and Hopp, W. B.: Further Studies on Human Intestinal Parasite Infections Among Residents of Indiana, *Jour. Parasitol.*, **26** [6, Suppl.]: 21, 1940.)

† Assistant Professor of Parasitology, Indiana University School of Medicine, Indianapolis, Indiana, since January 1, 1943.

[1] Headlee, W. H.: The Status of Human Parasite Infections in Indiana, *Jour. Indiana State Med. Assoc.*, **30**:524, 1937.

[2] Headlee, W. H.: Pinworm Infections Among Patients of an Indiana Hospital for Children, *Amer. Jour. Trop. Med.*, **23**:281, 1943.

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[7] Kmecza, J. M.: The Incidence of Human Intestinal Parasite Infections among Patients in a State Institution of Indiana, *Amer. Jour. Trop. Med.*, **19**:515, 1939.

TABLE I.

THE INCIDENCE OF INTESTINAL PARASITES AMONG EIGHTY-SEVEN INDIVIDUALS OF TWENTY-SIX BORROWER FAMILIES OF MONTGOMERY COUNTY, INDIANA

Age	Under 15 Years						15 Years and Over						Total					
	Male		Female		Total		Male		Female		Total		Male		Female		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Endamoeba coli	5	26.3	5	20.0	10	22.7	2	9.1	7	33.3	9	20.9	7	17.1	12	26.1	19	21.8
Endolimax nana	2	10.5	3	12.0	5	11.4	4	18.2	1	4.8	5	11.6	6	14.6	4	8.7	10	11.5
Iodamoeba bütschlii							1	4.5			1	2.3	1	2.4			1	1.1
Giardia lamblia	3	15.8	2	8.0	5	11.4	1	4.5			1	2.3	4	9.8	2	4.3	6	6.9
Chilomastix mesnili	1	5.3			1	2.3							1	2.4			1	1.1
Ascaris lumbricoides	1	5.3			1	2.3							1	2.4			1	1.1
Infected with Protozoa	9	47.4	9	36.0	18	40.9	7	31.8	8	38.1	15	34.9	16	39.0	17	37.0	33	37.9
Infected with Helminths	1	5.3			1	2.3							1	2.4			1	1.1
Total Infected	10	52.6	9	36.0	19	43.2	7	31.8	8	38.1	15	34.9	17	41.5	17	37.0	34	39.1
Total Examined	19		25		44		22		21		43		41		46		87	

Warrick and Pike County studies both unstained and iodine-stained fecal films were examined from each stool, and in addition a concentrated preparation was examined, using the zinc sulfate centrifugal flotation technique as described by Faust and his associates.[8] In all cases the participation of the individuals in this examination for intestinal parasites was on a voluntary basis. Of the 363 persons from 109 families visiting the clinic, 87 persons from 26 families were examined for intestinal parasites. Of this number 41 were males, ranging in age from two years to seventy-nine years, and 46 were females, ranging in age from three months to forty-nine years. This number included 21 heads of families, all males, and 20 wives. The parasites found and the percentage incidences are listed in Table I.

Except for the one infection of Ascaris lumbricoides, all other infections were of protozoa. The amebic infections, Endamoeba coli, Endolimax nana and Iodamoeba bütschlii are considered non-pathogenic. Infections of the flagellates Giardia lamblia and Chilomastix mesnili are of questionable pathogenicity. In the opinion of the writers the persons infected with these parasites should receive treatment to remove the infections, particularily if there is a persistent diarrhea and gastric disturbance that cannot be attributed to other causes.

2. *The Warrick and Pike County surveys.* The population group under consideration was from borrower families of Warrick and Pike counties, i.e., families receiving loans from the Farm Security Administration. These families had been approached by the Farm Security Administration concerning a sanitary program in which the installation of sanitary privies, screening of houses, improving the supply of potable water and other items of sanitation were considered. Consent was secured from the authorities to contact these families in an effort to obtain stool specimens for examination for intestinal parasite infections. The families studied were located at various points in the counties, often at a considerable distance from each other, necessitating much time in travel, frequently over very poor dirt roads, in order to contact them. A laboratory had previously been set up at the Evansville State Hospital for similar work at that institution (Hopp[9]), and the stool specimens collected in Warrick and Pike counties were transported to that laboratory for examination.

Stool specimens for microscopic examination were collected in half-pint, round, liquid-tight, cardboard containers. Whenever possible the head of a family was contacted, and the purpose and importance of the examination was explained. If he was willing for the examinations to be made, containers were left for all members of the family. The family was re-visited the following day, and the specimens that had been provided were collected and transported to the laboratory for examination. In all cases the participation in this examination for intestinal parasites was on a voluntary basis. A total of 28 families was contacted, and specimens were collected from 21 families. Of the 28 families contacted, four were non-cooperative. In all four of these non-cooperative families the head of the family was not at home at the time of contact, but an explanation was made to the wife or other responsible member of the family and containers were left. In all other cases where the head of the family was not contacted, cooperation was obtained. Specimens were not obtained from three other families, due in two cases to a misunderstanding of the time

[8] Faust, E. C., et al.: Comparative Efficiency of Various Technics for the Diagnosis of Protozoa and Helminths in Feces, *Jour. Parasitol.*, **25**:241, 1939.

[9] Hopp, W. B.: Studies on Human Intestinal Parasite Infections among Patients of an Indiana State Hospital, *Jour. Parasitol.*, **26** (6, Suppl.):20, 1940.

TABLE II.

THE INCIDENCE OF INTESTINAL PARASITE INFECTIONS AMONG NINETY-EIGHT INDIVIDUALS OF TWENTY-ONE BORROWER FAMILIES OF WARRICK AND PIKE COUNTIES, INDIANA

Age	Under 15 Years						15 Years and Over						Total					
	Male		Female		Total		Male		Female		Total		Male		Female		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Endamoeba histolytica	2	8.3	0	0.0	2	3.9	4	18.2	1	4.0	5	10.6	6	13.0	1	1.9	7	7.1
Endamoeba coli	11	45.8	7	25.9	18	35.3	13	59.1	12	48.0	25	53.2	24	52.2	19	36.5	43	43.9
Endolimax nana	6	25.0	7	25.9	13	25.5	6	27.3	7	28.0	13	27.7	12	26.1	14	26.9	26	26.5
Iodamoeba bütschlii	1	4.2			1	1.9	2	9.1			2	4.3	3	6.5			3	3.1
Giardia lamblia	2	8.3	6	22.2	8	15.7							2	4.3	6	11.5	8	8.2
Blastocystis hominis	1	4.2			1	1.9							1	2.2			1	1.0
Enterobius vermicularis			4	14.8	4	7.8									4	7.7	4	4.1
Infected with Protozoa	15	62.5	14	51.9	29	56.9	17	77.3	15	60.0	32	68.1	32	69.6	29	55.8	61	62.2
Infected with Helminths			4	14.8	4	7.8									4	7.7	4	4.1
Infected with both Protozoa and Helminths			4	14.8	4	7.8									4	7.7	4	4.1
Total Infected	15	62.5	14	51.9	29	56.9	17	77.3	15	60.0	32	68.1	32	69.6	29	55.8	61	62.2
Total Examined	24		27		51		22		25		47		46		52		98	

that they were to be collected and in the other to negligence or non-cooperation camouflaged as "being too busy." A total of 152 containers were distributed, and ninety-eight specimens were collected. In some cases specimens were not provided because of non-cooperation (*vide supra*), and in other cases nature was apparently perverse and time did not permit the writer to return at a later date to collect the specimens.

Fecal specimens from 98 individuals of twenty-one borrower families of Warrick and Pike counties were examined for intestinal parasite infections. Seventy-nine of these persons were from seventeen families of Warrick County and 19 individuals were from four families of Pike County. Of these persons 46 were males, ranging in age from ten months to fifty-eight years, and 52 were females, ranging from eight months to fifty-six years of age. Fifty-one persons were fifteen years of age or under, and 47 individuals were over fifteen years of age. The parasites found with the percentage incidences are listed in Table II.

3. *The incidence of intestinal parasites as indicated by the combined data of Montgomery, Warrick and Pike counties.* In order that the reader may have more reliable data concerning the incidence of intestinal parasite infection among persons of rural Indiana, the data obtained from the studies of Montgomery, Warrick and Pike counties have been combined in Table III. This table shows that among the total 185 individuals examined, twelve, or 9.2 per cent, of the infections are definitely pathogenic (Endamoeba histolytica, Ascaris, and Enterobius); that fifteen, or 11.6 per cent, of the infections are of parasites that are of questionable pathogenicity (Giardia lamblia and Chilomastix mesnili); and that (combining these two groups) twenty-seven, or 20.9 per cent, of the infections might well be called to the attention of the physician, or are infections which if eliminated would, no doubt, result in improvement of the general health of the individuals harboring them.

TABLE III.

THE INCIDENCE OF INTESTINAL PARASITE INFECTIONS AMONG ONE HUNDRED AND EIGHTY-FIVE PERSONS FROM RURAL AREAS OF THREE INDIANA COUNTIES.

	Mont-Gomery		Warrick and Pike		Total	
	No.	%	No.	%	No.	%
Endamoeba histolytica			7	7.1	7	3.8
Endamoeba coli	19	21.8	43	43.9	62	33.5
Endolimax nana	10	11.5	26	26.5	36	19.5
Iodamoeba bütschlii	1	1.1	3	3.1	4	2.2
Giardia lamblia	6	6.9	8	8.2	14	7.6
Chilomastix mesnili	1	1.1			1	0.5
Ascaris lumbricoides	1	1.1			1	0.5
Enterobius vermicularis			4	4.1	4	2.2
Infected with Protozoa	33	37.9	61	62.2	94	50.8
Infected with Helminths	1	1.1	4	4.1	5	2.7
Infected with both Protozoa and Helminths			4	4.1	4	2.2
Total Infected	34	39.1	61	62.2	95	51.4
Total Examined	87		98		185	

DISCUSSION AND CONCLUSIONS

Because of the relatively small number of persons examined in this study, no comparisons are made at this time with studies outside Indiana. Reports on other Indiana studies (*vide supra*) include comparisons of data obtained with that obtained by surveys in other areas. In the present study the general incidence of both protozoa and helminths was higher in Warrick and Pike counties, southern counties, than it was in Montgomery County, which is a northern county of the state. The number of individuals examined from these rural areas is indeed small, but the evidence presented is sufficient to indicate with increasing clearness that the incidence of intestinal parasitism in this population group should not be ignored, but rather should have more attention and study in order that more reliable data may be available concerning the extent and importance of the problem.

SUMMARY

Rural residents of Montgomery, Warrick and Pike counties of Indiana were examined for intestinal parasite infections. These 185 individuals were from forty-seven families that were receiving loans from the Farm Security Administration, and included both adults and children. Only one stool from each person was examined, the stool being examined by both the direct fecal film method and by the Faust zinc sulfate centrifugal flotation technique. The parasites found with their percentage incidences were as follows: Endamoeba histolytica, 3.8; Endamoeba coli, 33.5; Endolimax nana, 19.5; Iodamoeba bütschlii, 2.2; Giardia lamblia, 7.6; Chilomastix mesnili, 0.5; Ascaris lumbricoides, 0.5; and Enterobius vermicularis, 2.2. Fifty per cent were infected with protozoa of one or more species, and 2.7 per cent were infected with helminths. These data indicate that more attention should be given to intestinal parasite infections among residents of this state, particularly in certain areas.

FATAL ASPIRATION OF FOREIGN BODY

(Vomiting and Aspiration of Stomach Contents: Drowning)

HUGH A. KUHN, M.D.

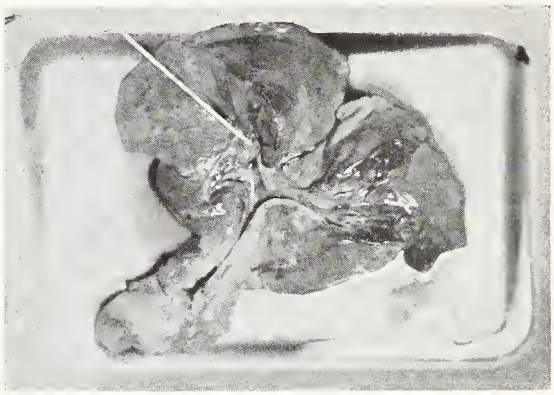
HAMMOND

W. C., male, aged 3, was rushed in a police ambulance to St. Margaret Hospital, November 19, 1942, with the history of having aspirated an orange seed. There was sudden choking and vomiting which continued during the trip to the hospital. He was carried in the rear seat of a police car, held on the lap of his mother.

On arrival he was near asphyxia, was cyanotic, had labored respiration and imperceptible pulse, and was rushed immediately to our clinic where a bronchoscopic team (warned from the hospital) were ready for immediate action. There was barely any exchange of air and pulse could not be felt. Immediate bronchoscopic examination revealed the trachea and both bronchi filled with fluid stomach contents. This was quickly aspirated, but the patient was dead.

Autopsy

Autopsy was obtained and revealed the larynx and trachea full of dirty grey material, and primary bronchi filled with turbid fluid. The right lower lobe bronchus was plugged by a large orange seed. The lower lobes of both lungs were congested; the patient had drowned in his own secretion.



This case, although rare, portrays one of the most tragic outcomes of such an everyday occurrence as aspirating any type of foreign body and illustrates the possibility of drowning from one's own vomitus. If the child had beep held up by his feet during the choking, and transported to the hospital with the head low and face down, the tragic outcome might have been avoided.

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NOVEMBER, 1943

Editorials

THE NINTH NAVAL DISTRICT SESSION

The Navy came through, and how! Invited to accept the compliment of having the annual session of the Indiana State Medical Association planned in its honor and having its officials participate most freely in our proceedings, the Ninth Naval District personnel put every foot forward to show their appreciation of this invitation. We doubt that in the entire history of the capital city there ever has been such a display of gold braid and natty uniforms as was assembled there on this occasion. (Some of the officers brought their entire wardrobes and made use of every article therein.)

Old Glory was prominently on display everywhere, the national colors of red, white and blue lavishly displayed — all this, with the bright uniforms of the men of the armed services, made a setting such as we never before have had. And the spirit of the members present was far different than at sessions held in times of peace. There was the feeling, "We are at war; we have serious business before us; pleasures can and will wait another year."

We heard several men remark on the atmosphere of the House of Delegates. Here everything was business — and business of the most serious import. Members of the House were very attentive, and the voting on the more serious questions was usually of the unanimous sort.

The attendance was large, some 1,400 registrations, far more than had been anticipated because of wartime conditions. The scientific programs were conducted as per schedule, each essayist having a large and appreciative audience.

The council session was one of unusual importance, in that many new problems arose, each being solved to the satisfaction of all members of that body.

The reference committees as a whole did their work unusually well, some committees sitting for as much as six to eight hours. It was our observation that practically all the resolutions presented at the first House session concerned matters of the greatest moment — most of them finally were passed at the final House session.

The Military Preparedness Luncheon held in conjunction with the state convention was again the focus of great interest and was a big success. Dr. Bird, as chairman, and the committee are to be commended upon the extraordinary finesse with which the program was carried through, and our sincere thanks must be expressed for the keenness with which the medical military manpower problem was explained by Rear Admiral John Downes, of the Navy, and Major General George F. Lull, of the Army.

Admiral Downes undoubtedly allayed the criticism and complaints occasionally heard from physicians, both in and out of service, by explaining the necessity for training civilian physicians entering military service as to the duties and functions of a medical officer, with which experience the civilian physician has not previously had an opportunity to become acquainted. General Lull enlightened us on the medical military manpower situation, and remarked that there are six thousand fewer physicians in the Army today than there were in the Army at the close of the first World War, in 1918, when the enlisted strength of the Army was only a fraction of that which it is today.

Our Governor Schricker expressed the sentiment of all of us in being proud of the large part that personnel from Indiana are playing in the Navy, and in recognizing that whatever medical personnel is required by the armed forces must be readily furnished, even though it might result in a greater load to the remaining civilian profession and less professional care to the civilian population. At the same time we must give full honor and recognition to those who are carrying on in civilian practice under the trying circumstances and at great personal sacrifice to themselves.

The meeting was made very realistic as a result of the presence of a large number of medical military personnel from the Navy and the Army.

We were most fortunate this year in having a number of the dentists attend the meeting. Seventy-five or more members of the Dental Association gathered in special session Wednesday afternoon to hear Captain Raymond C. Wells, president-elect of the American Dental Association and chief dental officer of the Medical Division of Selective

Service, and Captain Joseph A. Tartre, senior dental officer, Ninth Naval District, United States Navy.

The officers of the State Dental Association and the members of the Indiana Procurement and Assignment Service for Dentists attended the War Participation luncheon, and a number of them were present at the banquet, among them being Dr. Roy M. Smiley, president of the Indiana Dental Association, and Dr. E. E. Ewbank, the secretary. This, we hope, will be the beginning of a greater coöperation of the two organizations.

Tuesday was devoted to the usual business meetings, and the annual stag party was held in the evening.

Wednesday morning the scientific program began and continued throughout the day. Guest speakers included Herman E. Hilleboe, M.D., of Washington, D.C.; Harry S. Gradle, M.D., of Chicago; Rear Admiral Dallas G. Sutton, of Washington, D.C.; Reed M. Nesbit, M.D., Ann Arbor; Norman H. Jolliffe, M.D., of New York; Commander John F. Luten, of the Great Lakes Naval Training Station; Ernest Perry McCullagh, M.D., of Cleveland, Ohio; Brigadier General George F. Lull, of Washington, D.C.; Read Admiral John Downes, of the Great Lakes Naval Training Station; Captain Joseph A. Tartre, of the Great Lakes Naval Training Station; Colonel Thomas T. Mackie, of Washington, D.C.; John M. Waugh, M.D., of Rochester, Minnesota; Peter C. Kronfeld, M.D., of Chicago; George J. Thomas, M.D., of Pittsburgh, Pennsylvania, and Herman L. Kretschmer, M.D., of Chicago.

The Council and House of Delegates convened on two occasions. The election of officers for 1944 resulted as follows:

President (elected in 1942): Jacob T. Oliphant, M.D., Farmersburg.

President-elect: N. K. Forster, Hammond.

Treasurer: A. F. Weyerbacher, M.D., Indianapolis.

Delegates to the A.M.A. (two years): Re-elected Don F. Cameron, M.D., Fort Wayne, and F. S. Crockett, M.D., Lafayette. The alternates, Norman M. Beatty, M.D., Indianapolis, and A. M. Mitchell, M.D., Terre Haute, were also re-elected.

The present editor of THE JOURNAL, E. M. Shanklin, M.D., was re-elected to serve for another year. Maynard A. Austin, M.D., of Anderson, and Minor W. Miller, M.D., of Evansville, were elected as members of the Editorial Board, replacing Herman M. Baker, M.D., of Evansville, and L. G. Montgomery, M.D., of Muncie.

Sections on Medicine, Surgery, Ophthalmology and Otolaryngology, and Anesthesia held their meetings in the afternoon on Wednesday. Section officers were elected for 1944, as follows:

Section on Medicine: Chairman, Eugene F. Boggs, M.D., Indianapolis; vice-chairman, Wemple Dodds, M.D., Crawfordsville; secretary, Marion R. Shafer, M.D., Indianapolis.

Section on Surgery: Chairman, William H. Howard, M.D., Hammond; vice-chairman, George Collett, M.D., Crawfordsville; secretary, James Robert Doty, M.D., Gary.

Section on Ophthalmology and Otolaryngology: Chairman, C. P. Clark, M.D., Indianapolis; vice-chairman, H. C. Wurster, M.D., Mishawaka; secretary, Kenneth L. Craft, M.D., Indianapolis.

Section on Anesthesia: Chairman, Russell W. Kretsch, M.D., Hammond; vice-chairman, Harry Knott, M.D., Plymouth; secretary, John M. Whitehead, M.D., Indianapolis.

Indianapolis was chosen as the scene for the 1944 convention.

Even though everyone knew that it was only a harmless practice smoke bomb, everyone who was on hand in the climax of the chemical warfare display put on by the Navy after the annual dinner was duly impressed. It was a real show, and as the magnesium bombs ignited, burned through the specially constructed demonstration platform in an incredibly short time — their potency augmenting when hit by the steady stream of water from a fire hose and the sparks showering among the crowd of some four hundred who had gathered on the south steps of the War Memorial — everyone was glad it wasn't the real thing.

Commander John F. Luten was in charge of the demonstration, but it was put on by Lieutenant (j.g.) S. H. Livingstone and the Great Lakes Naval group. Lieutenant Livingstone gave a loudspeaker "bomb by bomb" description of what went on, while Gunner J. B. Powers, warrant officer, was the principal actor. It was he who set off the bombs and then fought the fire, and defied the barrage of sparks. He wore no goggles and no gloves, and why he wasn't burned is beyond comprehension. The "pay-off" in the crowd came when the World War Memorial was blanked out by a smoke screen. Those who were caught in the smoke blanket couldn't see a foot ahead, and although it was harmless the smoke caused coughing and everyone was visibly relieved after it was all over.

"How could the British take it as they did, and how can Germany stand up against real attacks of this nature?" was the universal question.

This demonstration gave us a better understanding of what real chemical warfare is like than all the written descriptions and movies ever could do. Thanks again, Ninth Naval District, for all that you did.

Thus closed a convention which is admittedly an outstanding event in our history.

Because the House of Delegates' minutes are voluminous and the fact that proof must be submitted to all speakers, they will be published in December instead of the November issue.

STILL ANOTHER JOB

We might paraphrase an old adage by saying that "a physician's work is never done." We get over one hurdle and begin to think that the way is clear when, lo! there still is another hurdle—and yet another. Now comes the rather startling figures as to the chief causes for rejection of registrants of the eighteen to nineteen age group — and it is startling. We, of course, had expected visual errors to play a leading role, but had not counted on many other physical defects as being so common in this age group.

In *The Journal of the American Medical Association* for September 25 appears a report covering a three-month period of such examinations. Mental upsets, skeletal defects, cardiovascular diseases, ear trouble, educational deficiencies, et cetera, make up a long list of reasons why so many American young men are ineligible for service under present regulations. One-half of the rejectees among the Negro race were due to syphilis and to educational deficiencies, two causes that certainly are remediable, as are many of the others above noted.

Twenty-three and eight-tenths per cent of the white youths called up for examination were rejected either at local boards or at the induction stations, while the figure for the Negro youths was much higher, being 45.5 per cent.

This, in a way, is an indictment of the "American way of life"; much of it is explainable, much of it is not. It is not, however, an indictment of the medical profession, for we do not yet have compulsory health laws. Every physician knows of hundreds of defective young folks, most of whose defects are curable, but there is no law compelling them to accept the treatment.

The educational phase is another problem; it is an accepted fact that until comparatively recent years the education of the Negro was sadly and grossly neglected. If one will read the book, "George Washington Carver" — and in the reading he will do himself a personal favor, since it is one of the most delightful and instructive books published in recent years — the facts outlined above will become quite clear.

We, of course, must leave the educational phase to others, but the physical program belongs to us. Just how we are to bring about the remedy becomes another problem, although we would say that publicity is the biggest element in this solution. Here, then, is another Public Relations job — and it is a huge one. Were the newly-formed committee of the American Medical Association in operation, here would indeed be a fertile field. In our medical journals we talk chiefly to medical men; few laymen read our magazines. Were the American public properly advised as to the seriousness of the situation in matters of health and physical vigor in American youth, a demand would be made that something be done about it—something really worth while and effective.

There is no end to what a live Public Relations expert can do in a medical way, and here we have a most interesting topic for such consideration.

THE WATER SUPPLY IN INDIANA

What with the frequent flood conditions that apply in many sections of the state and with a rainfall of unusual proportions during the current year, it might seem that Indiana is well supplied with that vitally necessary commodity, water. However, such is not the case. For several years past there has been a growing concern over the continual lowering of the "water table' 'in our state. In some sections where water was always reached at a depth of 80 feet, and this in plentiful supply, well drillers now have to go down 100 feet or more. In other sections the water table is found at much lower depths.

For some time our economists have been seeking some means of relief and have urged that a commission be named to further the study of the problem. Now it appears that we may expect a scientific survey of the situation, with possible recommendations as to what to do about it. The Indiana Conservation Commission, an organization that long has commanded the respect and the admiration of Mr. and Mrs. John Hoosier and their progeny, has at long last undertaken this sort of study. This could well have been started many years ago but for the short-sightedness of our law-making agencies. It is strange, though true, that for years our legislatures have been "long" on making appropriations for the less essential things, but very "short" on similar appropriations for things most vital.

The funds at hand for this survey are rather of the meager type, a total of some $60,000 per year, but this amount will suffice for at least the preliminaries necessary for such a vast project. It may be hoped that our solons, once they are awakened to the importance of the matter, will appropriate the necessary funds. Of this amount only one-fourth comes via legislative appropriation, the remainder coming from various other sources.

The United States Army Engineer Corps will be of material service in this work, since this department is more than concerned over the annual flood situation and will gladly cooperate in any movement to control the water problem.

During the last May floods accurate measurements were made of flood waters in the various sections of the state thus affected, and from this data very important information is available which will, of course, be used in future study.

We do not pose as being an authority on any phase of the water problem, yet make bold to again suggest, as we have done for years, that the "wholesale" planting of trees, those indigenous to the locality, should continue to be encouraged. There are thousands of acres of Indiana soil not very well adapted to farming purposes, yet they will make for a thriving growth of trees and shrubs.

We know of one section in southern Indiana where the hillside soil has been depleted, washed away by water, due to the clearing of a patch for tobacco cultivation. After two or three years of such use this site is abandoned and erosion proceeds to complete the destruction in so far as agrarian purposes are concerned.

It is these lands that will lend themselves to reforestation. Then, too, we have the strip of mine areas, covering thousands of acres; some of them have been planted with trees but thousands of acres remain unused.

The Conservation Department each year offers millions of seedling trees, all at a very low cost. It is not a matter involving too much labor to set out these trees, and most of them demand little care after they once have established themselves. Instead of clearing more land in Indiana, we need more land planted to trees. Not only will this help in solving our state water problems, but it will materially add to the wealth of the owner of the lands involved. There was a time when Indiana lumber commanded a top price in the market and there seemed to be an inexhaustible supply, but that is all in the past. Few stands of virgin timber are to be found within our borders, notably the tract in Orange County which only recently attracted the attention of the press all over the country, when it was announced that this tract was to be sold to a lumbering outfit. Popular demand, backed up by cash, saved this tract, which might well serve as a model for generations to come.

Physicians are, of course, interested in the water problem confronting our state; water is necessary to health, water is one of Nature's gifts to man, and she certainly meant that we should use every precaution to preserve that gift.

"MEDSOC"

One of the finest — if not *the* finest — programs ever instituted by the Indiana State Medical Association is that known as "Medsoc." Many doctors, while they knew something of the operation of the plan, did not know who "Medsoc" was, but at the recent convention his name was revealed, and a striking exhibit of some of his work was on display.

John Ray Newcomb, Indianapolis ophthalmologist, is the sole inventor-operator of this diverting form of entertainment, by which every Hoosier physician in the armed forces receives, via V-Mail, a letter from headquarters. And these really are letters — not the stereotyped "I am well; hope you are the same" — letters that are intended to interest the boys, and they do just that. They are letters sent in by members over the state, by notable Hoosiers who may or may not be presently located in Indiana, plus letters from the outside, from folk known to every man in the service.

The exhibit mentioned was the most unique thing we ever have seen and attracted hundreds daily. The letters written by these folk were there, together with a "blown-up" picture of the writer. Some of them were of a serious nature, but most of them were of the humorous variety — all calculated to bring out a good belly-laugh, a thing that service men need most.

Old "Medsoc" is getting plenty of responses from the men who receive these letters; they like them and look forward to the next one with great anticipation.

We believe that there is nothing else like it elsewhere in the country, and we certainly take off our hat to the genial Newcomb, whose baby this is. The plan is to have the original letters on file at headquarters, and the enlarged, framed letters and pictures probably will be on exhibit at the Indiana World War Memorial after the war is over.

Thus is added to the post-war record of the Indiana State Medical Association an exhibit that is priceless; many physicians who received these letters from month to month while in service will be found making pilgrimages to the Memorial, that he again may view this exhibit.

FUTURE MEDICAL NEEDS

Brigadier General George F. Lull, Deputy Surgeon General, in addressing a group at the recent State Association convention, made the frank statement that "If the global war continues for a long time, more physicians will be in the armed services and fewer physicians will be available for civilian needs." General Lull made some other statements that should be read by physicians everywhere, one of them "The American soldier is getting better treatment than in any previous war, and a large majority of them are getting better care than they ever got back home."

The Procurement and Assignment Service has officially declared the need for additional enlistments in the Medical Corps; Indiana will be asked to furnish more than two hundred of this group. We already have reached the point where this added number of medical men withdrawn for practice in the state will prove a hardship in many instances. Already there are sections that are not any too well supplied with medical care within the immediate vicinity. Just what the solution will be becomes another problem.

A Procurement and Assignment official has offered the following as a possible solution, and it contains so much merit that we append it hereto:

PATRIOTIC OBLIGATION—THE DISQUALIFIED DOCTOR

"The nation is confronted with its greatest emergency entailing an unheard-of drain on its resources, not the least of which is that of manpower. Whatever contributes to winning the war should be our primary consideration. Relegated to secondary consideration or no consideration at all are matters of personal convenience and individual welfare.

"Hundreds of doctors have entered military service from Indiana, and thousands from the country in general.

They sacrificed lucrative practices and home comforts and financial considerations, if preserving the ideals we are fighting for can be denominated a sacrifice. We have only begun to fight; we have only begun to have casualties; we have not yet reached the maximum of expansion of armed potentialities; in the expansion yet to come and for replacements many medical officers will be needed. This means that Indiana will be called upon to supply additional medical officer personnel. Largely these must come from defense plants and local communities where those declared essential but physically eligible for duty with the armed forces are now employed, and who *must* be released for such duty through allocating to these locations those who are physically ineligible. Through consent to such allocation the disqualified doctor will be meeting a need on the home front and making a material contribution to the war effort, which after all is his patriotic duty. Those of us not yet in the war have been privileged to enjoy what is largely a heritage handed down to us through the sacrifice of our forefathers, to which we have contributed little and for which we owe something. The time has now come to make a payment on account. The question is, shall we do this voluntarily or shall we wait until pressure is brought to bear and in a way forcing us to do what we should eagerly seek to do without coercion.

"The day is near at hand when by voluntary or forceful means resort must be had to allocating of the disqualified doctor. There are already many areas and local communities where doctors are urgently needed to meet the inadequate medical coverage of the civilian population. The home front is largely covered by older doctors. These doctors are having their efficiency lowered; they are unequal to the task they have assumed—many of them returning again to practice from retirement. They are becoming disabled; they are dying. All these things mark an increasing demand for doctors on the home front. This can be met *only* from the ranks of the disqualified doctor. Seventy-five per cent of the new graduates are entering the armed forces, the other 25 per cent being disqualified. This leaves only about 1500 for the nation's needs, whereas formerly there were 5,000.

"As time goes on, we must look to the future. What is going to be the situation three to five years from now, when the ranks of the older men on the home front now carrying a load by effort that can not be sustained will have been further depleted? Just because the young graduate applied for a commission and was found to be ineligible is no extenuating circumstance nor in any way implies that he has no further obligation in the war effort. He is being asked to make no sacrifice. He is being asked to go to locations where within a short time he will have reached a point in dollars and cents that his predecessors required years to attain. The men who are making the sacrifice are those giving up their lives on battlefronts or finding themselves serving those casualties of the battle line.

"The procurement and assignment is about to ask that all disqualified doctors consult the chairman when they are found to be ineligible for service. The chairman finds himself in the position where it will become necessary to certify those refusing to consent to allocation to the State Medical Association, which in turn will notify the local county society of the man's refusal.

"Many local societies already are closing their membership for the duration. Thus such a disqualified physician in the status of refusal will find himself in an embarrassing position, especially in the eyes of the public. This public has become sufficiently war conscious to feel that the men of the service come first before any other consideration. We have some two hundred eighty disqualified doctors in Indiana. Obviously many of them have made permanent arrangements, but in the future no such arrangements should be made until the Procurement and Assignment Service has been consulted. The needs of a considerable number of communities *must* be met immediately. Future needs must be anticipated on the basis of what has been outlined about the dropping off of older physicians. There is but one source of replacement, and that is from the ranks of the disqualified physician. Think it over!"

In time of war when a man deserts his post of duty in military circles, the penalty is death. The nation is at war; communities are component parts of the nation. Efforts on the home front must be integrated with those on the battle fronts.

In the procurement and assignment of doctors, communities have been reduced to thin proportions. When a doctor picks up and moves from a community where he is needed and moves to one where he is not needed, he not only deserts that community, but, in addition, disturbs the attempted undertaking of maintaining an equitable distribution of doctors. He creates a problem practically impossible of solution—that of finding a replacement.

In this country Hitlerian methods have not been adopted, but certainly a free agent must assume a moral responsibility by remaining where it was expected he would remain, in lieu of the soldier's bounden duty on the one hand or the death penalty on the other hand. The spirit of unfairness that tends to prevail by the practice of changing locations on the part of doctors is not a commendable one in view of the fact that we have a war to win. Our duty at home is as essential as the duty at the front is vital. The soldier gauges his conduct by no measure of selfishness. We are only civilian soldiers; let us recognize the difference between legal rights and moral rights; let us remain at our post of duty for the duration.

Editorial Notes

The next session of the Indiana State Medical Association will be held in Indianapolis, the date to be selected by the Executive Committee.

It was quite noticeable in some of the debates in the House, when questions of future policy were under discussion, that many of the speakers "tempered the wind." It was quite apparent that they did not say what they might have said, but were very careful in their choice of words. Probably the sobering influence of global war accounts for this.

As we now view it, the matter of combatting the Wagner-Murray-Dingell Bill in the Congress is a man-to-man fight, rather than a mass attack. By that we mean that the individual physician can do more than any committee in setting things aright. From personal experience we find that our thinking patients are aware of the dangers of such a legislative measure and, after all, it is the voters who count most in such affairs. A little time taken to explain just what this bill means will result in letters from individuals being sent to our Washington legislators, and these personal letters carry much weight.

THE JOURNAL advertising for the first nine months of 1943 showed an appreciable gain, this notwithstanding the war retrenchments of many advertisers.

Several members of the House of Delegates, when a resolution concerning medical aid to the dependents of men in service was under discussion, declared that in their home counties these folk were well able to pay for such services, and that in many instances they now have more money than they ever have had before in their lives.

It seems that the plan of "tatyping," developed by Doctor Kelly, of Argos, has attracted more than local attention. THE JOURNAL recently carried a news note concerning the ingenious plan used to record blood types by Doctor Kelly. He now advises that he has made some improvements in his system of tatyping, and promises an article concerning this in an early number of THE JOURNAL.

Printing costs of THE JOURNAL will be upped no little extent next year, this because of higher wages, labor shortage and a marked increase in the cost of paper. We again take the opportunity to remark that we have a darn good printer. Two visitors, each of whom has had a life-time experience in medical magazine publication, stated to us that ours was an outstanding print job.

What a wealth of information regarding tropical diseases is being accumulated by American physicians now serving the war areas of the South Seas! For, be it known, research work is being carried on in those areas, even though the actual battlefields are within seeing distance from the field hospitals and laboratories where this work is being carried on. Many of our medical texts will have to be written immediately after the conclusion of this war.

Complaints continue to come in anent the *improper* use of gas cards by physicians. Due inquiry brings the information that the very great majority of physicians play fair in this regard, but that there are some who show an utter disregard for the rules set down by the rationing boards. We again urge all to seriously consider the absolute necessity of extra trips and a strict conformance to the rules of the game.

There still is a shortage of nurses in the armed forces, in the hospitals, and for private duty. Official Washington just now is issuing a number of posters, things of real beauty, for distribution throughout the country, calling for enlistments in this service. Our young women can serve in no better capacity than to enlist in such a program.

THE JOURNAL office was honored with visits from two A.M.A. headquarters' officials, both connected with the A.M.A. Cooperative Advertising Bureau.

Immediately after the war, Indiana, like most of her sister states, will find herself possessed of thousands of air-minded young men—chaps who have spent most of their service-time in some phase of aeronautics. It is likely that many of these lads will desire to continue in that activity at least to some extent, so we may look for an enormous increase in the number of planes in service, much like the early days of automotive transportation. It is even possible that it will be necessary to constitute a group of aerial traffic cops!

It is always much better to honor a man while he is alive and can enjoy it, and while he can be on hand to defend himself against misstatements that may come from even his best friends. So, the tribute paid to Dr. Charles Hupe during a testimonial dinner given by his friends at Lafayette on September seventh strikes us as being something very appropriate. Doctor Hupe has practiced medicine in Lafayette for sixty years and is Tippecanoe County's oldest practicing physician. He is eighty-six years of age and has served as treasurer of the Tippecanoe County Medical Society for more than forty years.

It was made clear by the House of Delegates that leadership in medicine during the years to come will have to give ear to the profession at large; this was definitely borne out by the vote in the matter of the resolution to this effect, which was unanimous. Another resolution clinched the matter when it ordered our delegates to the American Medical Association to carry out to the letter the provisions of the resolution previously adopted. This indicates that the members of the Indiana profession are not rebels; we merely are asking that our leadership represent the whole medical profession, and that they organize and carry on in such a manner that we may successfully combat our enemies before they become too firmly entrenched.

Our attention has been called to a few young married women whose husbands are in service. They, of course, are drawing an allotment, to which we have no objection, but we do feel that these women should be engaged in some sort of war work, as many of them are doing. Our industrial plants afford many such opportunities, as well as in many other lines of endeavor. However, there are some who not only do not seek such employment, but choose to "get by" in a more or less reprehensible manner. We have noted several who hang about taverns, drinking more than is good for them and picking up "chance acquaintances" here and there. It probably is impossible to carry out such a plan, but we do feel that such women should be taken off the "pay roll" right now.

Convention Notes

Ernest P. McCullagh, Joseph Walther, E. M. Shanklin, and Richard J. Mills

Governor Schricker, Herman L. Kretschmer, C. H. McCaskey and John Downes

We were worried no end about getting these convention notes started, for they simply cannot be done without some mention of Sam and Katharine, those young folk from Shelbyville, best known thereabouts as the Kennedys. Of course, Sam was on deck before the show began, but we could not find Katharine until a day later when we were able to get going on our collection of things to write about.

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The House was called to order right on time for the first session, an unusually large attendance being noted. Few delays were had, the chair expediting the business with marked celerity.

* * *

George Daniels, the "me, too" chap, who always is seconding motions, was sure off his stride during the initial House session; the record shows that he did not let out even one little peep during the session. The reason for his silence, it developed later, was because he was "mouse-trapped" by being put on the Credentials Committee where he was kept busy—and silent.

* * *

There was quite a display of the jitters throughout the convention session; may have been due to so much Navy gold braid being present, but on the other hand it may have been the war. In introducing the guests, Carl McCaskey got his cards messed up and began dealing from the right instead of the left.

* * *

The little fellow from Tippecanoe, the head man of the Council, y-clept Floyd Troutman Romberger — what name — bigger'n he is, sure does handle that Council. We never knew a man to use the gavel so much or so vigorously. When "Rommy" decides enough has been said about something, he closes the argument and proceeds to the next item on the agenda.

Governor Schricker opined that a dinner invitation in these rationing days was really something to be appreciated. It appeared to us that the Governor was having a good time at the party.

* * *

Tom Taggart, head man at the French Lick Springs Hotel and especially good friend of Hoosier Medicine, has been confined at the Indianapolis Methodist Hospital. The Executive Committee, at its recent meeting, sent a bouquet to Tom, accompanied by a letter conveying the best wishes of the Indiana State Medical Association.

* * *

Hub Detrick was among the guests of the House — chaps who drop in to see how thing are done. Evidently he looked most important, for the chair named him as one of the team to seek out the newly chosen president-elect and escort him to the throne. Hub never batted an eye but carried on like a regular member of the House.

* * *

Maynard Austin looks heaps better since his two-month vacation, following a serious illness. However, he accepted a Reference Committee assignment that would cause many men to hesitate, since matters coming before that committee would necessitate a lot of hard work. Maynard, however, was never known to shirk; he seems to thrive best when he has a tough job ahead of him.

* * *

LaRue D. Carter, of Indianapolis, again paid a beautiful tribute to our men in the armed service; rather than addressing the dinner audience, he spoke directly to the men, many of whom are overseas. Last year, at the annual dinner, Doctor Carter gave a similar talk, but the one delivered this year was about the best thing we ever have heard. No one in that vast audience could but feel that "Ruey," by some invisible means, was speaking directly to the hundreds of Indiana boys now scattered over the face of the globe.

(The photographs used herewith are candid camera shots by Dr. William Niles Wishard.)

Thomas T. Mackie, Robert Tyndall, E. A. Lofquist and Meredith Nicholson

Many of the old-timers, men who had not missed a session of the House of Delegates in our memory, are gone and their absences have left a real void. For many years the stentorian voice of Walter Carver announced that a quorum was present and that the House could get down to business; we miss these older men — they just leave a vacant spot no matter who may succeed them.

* * *

Lucille Kribs, long-time and highly efficient assistant secretary of the Indiana State Medical Association, again got into the permanent archives. George Daniels saw to it that she was directed to cast the unanimous ballot for Davy Crockett, as one of the A.M.A. delegates. A lot of folk could well use her diction and clarity when making motions!

* * *

Bill Wishard had fun at the dinner, the sort of fun Bill likes best. He darted here and there about the room with his camera and flash bulbs, shooting several yards of film. That is how we get the convention pictures that appear in our post-convention number. By the way, had you noticed how much this young man resembles his father as the years go by? The quaint little wrinkling of the brow, the at times twinkling, half-closed eyes, the slight stoop as he takes a shot with the camera — these and many other "tics" brought that Grand Old Man of Indiana Medicine right into the banquet hall.

Well, Davy Crockett, true to our predictions of a few years ago, finally did it! He resurrected his old "convention hat," a model that served him for many years and was indistinguishable in any assembly. We also had been long intrigued with the hats affected by Bunny Hare, head of the Evansville State Hospital, but this year Hare did not wear a hat, hence we cannot comment on it.

* * *

When it comes to a terse, original presentation of a question, we will yield the palm to Claude Paynter, of Salem. When he arises in the House his fellow members know he has something on his mind and that he will say it in understandable terms. He presented a resolution at the first session of the House, giving it an impromptu preamble that brought every one to attention.

* * *

Professor Gish had a little stuttering act in his talk that was most clever, but it seemed to be contagious. Carl McCaskey fell a victim to the contagion and on many occasions, even a day later, got most gloriously mixed up. One of his best acts was when announcing he would receive nominations of two delegates to the A.M.A. He said, "We will now proceed to re-elect two delegates to the American Medical Association House of Delegates." By George, that is just what the House did, probably did not want to let Mac down.

* * *

John Ray Newcomb, alias "Pete" and alias "The Bishop," had the time of his life — at least for some twenty-five years of that span. Long-time devotee of organized medicine, he sorta dropped out of the picture soon after World War I, but when the drums of global warfare began to sound and his medical confreres were wanted for service, Newcomb re-donned the old armor, took up where he left off and again is the active chap as of yore. He says it seems mighty — that isn't exactly his language — good to be back on the job. And a good job he has done, what with his work in Procurement and Assignment and his "Medsoc" letters to the boys away from home.

Among the doctors and wives at the presidents' table are Herman Baker, Charles N. Combs, Alexander Cavens, Dr. and Mrs. F. S. Crockett and Dr. and Mrs. J. H. Weinstein

John M. Waugh, W. D. Gatch and Joseph Tartre

E. O. Asher, member of the Executive Committee, was unable to attend this session, the first he missed in many years. Doctor Asher has been confined to his New Augusta home because of illness, but we are officially advised that in due time he will again be with us.

* * *

The speaking program was delayed for some reason or another, and Gordon Batman, president McCaskey and Tom Hendricks had a wig wag session, trying to get things going. Don't know what it was all about.

* * *

Walter Kennedy, Sage of New Castle, was on the job early, especially interested in what the House proposed to do with the many economic resolutions to come before that body.

* * *

However well received the smoker entertainment might have been, the fact remains that it was a flop in one sense; not a "gallopin' gazelle" was to be seen; not one singer marched about the audience singing sweet nothings into embarrassed ears; in fact, it was a good, well-staged, decorous performance with much merit.

* * *

Harry Howard, curly-locked Adonis from Hammond, sure had a workout in his capacity as chairman of a reference committee to which was referred some half dozen protest resolutions. However, as council chairman in his home county society he has had plenty of such experiences and could take it.

* * *

We were about fed up on chicken while at the convention; no matter where we went, either on "private duty" or as a luncheon or dinner guest, the menu consisted of chicken. On at least one occasion they tried to sell us chicken for breakfast, but a long training down in the Wild Cat neighborhood, where breakfast meant something, forced us to decline any fowl other than one of its products. Jaunting northward toward our home estate, we paused for an old-fashioned dinner at the home of an only sister, who is widely proclaimed as a darn good cook. But, dog-gone it, if she didn't bring forth chicken for dinner! We are ready for an early restoration of the day when we can have a variety of food.

We must have had a bituminous coal miner in the House, since there was one vote cast for John L. Lewis. Might have been Mitch!

* * *

Nick Carter and Minor Miller were seen hobnobbing on several occasions; betcha the spirochete was catching plenty of hell.

* * *

George Daniels *is* slipping; in an earlier note we commented on his failure to make the first House motion; in the second session he managed to do better, but several others got in ahead of him in the matter of seconding motions.

* * *

Major George Dillinger was visibly embarrassed; his perennial invitation to hold the next annual convention at French Lick was "out" due to the fact that for the duration he no longer is the delegate from Orange County. That, however, seemed to be the only one of his numerous and varied activities that was curtailed.

* * *

What some might term a "spirit of unrest" seems to be abroad in medical land. Numerous resolutions, each calling for more activity on the part of our leaders, were presented at the first meeting of the House. All were written in the same vein, which means that the rank and file of the profession demand something more than lip service from now on out. Somehow or other we are quite in accord with such a program. Too long we have sat supinely, while the Brass Hats say, "Just leave it to us."

* * *

"Professor Joe Gish," the essayist with the homely subject, "Apple Pie," proved to be an Indianapolis attorney, connected with the Fletcher Trust Company, operating under the name of Richard F. Mills. His presentation was most cleverly done, and just how a man could talk so long and so entertainingly about a slab of apple pie remains a mystery to us. The gold buttons of officers of the Navy in our immediate vicinity did a continuous rise and fall throughout Joe's talk, meaning that good, hearty belly laughs were quite in vogue. Joe is good; he has taken an original idea of entertainment and made a lot out of it.

Albert Stump, Gordon Batman and John F. Luten

J. T. Oliphant, L. F. Brozo, Larue D. Carter and M. K. Coleman

Ross Sensenich and Robert Phares

Is it possible that the long-winded talkers, the chaps who possess three complete sets of lungs and triple tracheae, are passe? At this writing there has been but one session of the House, but during the period the old-timers who really used to put it out did not take the platform, there to air their views on most anything that might be before the House. One chap who is extremely long on preambles got up once, and we promptly held our breath, fearing that we at last were in for it, but he merely was changing his seat and the calamity was averted.

* * *

We had the pleasure of having a chat with Major Joseph Walther, flight surgeon with the Air Forces and an Indiana boy. At present he is at home on furlough, having flown in from Honolulu. Prior to that he had been in several South Seas battles, and on his return to Honolulu he hoped that he would be sent to Burma. These boys of ours never quit, even after they have been in several scraps and sent back home for a short rest, they want to "get back and get in it." Major Walther told us about many Hawaiian customs, including the national dish, "Poi." We never have met up with this article of diet, save in cross-word puzzles.

* * *

The armed forces put on a good show at the Scientific Exhibit. It was a pretentious display, reflecting an important part of the training thousands of our young men are receiving in specialized fields. In the Laboratory Section of the Aviation Equipment Division were shown a number of sketches, by an enlisted man, that are comparable to those shown in our latest texts. The Medical Technical School, Dental Section, was chiefly devoted to matters of dental laboratory technique, while the X-ray Section attracted the attention of hundreds of medical visitors. The technique of shock treatment came in for much attention, the frequent "drills" carried out drawing capacity audiences. What a fund of worth-while information these young men will have after the war!

* * *

One of the boys was telling quite a tale about the residency days of Cleon Nafe. The story had to do with Nafe's attendance upon the clinical psychiatric lectures of Doctor Max Bahr, at the Central State Hospital. Seems that a very good-looking young woman patient was scheduled to appear before the clinic, a dame who refused to make an appearance at any time unless clad in a beautiful fur coat she possessed. She proved to be recalcitrant upon this occasion, refusing to go through her paces as a clinical patient, but, looking upward to the back row of the amphitheatre, she pointed out Nafe and told Doctor Bahr, "If you will have that handsome young man with the charming moustache come down here, I will do anything you request of me." Nafe came down, pronto, and the clinic went upon its course.

Jack Jones got his history and his famous sayings all messed up. Growing dramatic in one of his numerous discussions, Jack cracked out this one: "As Henry Clay said, 'Give me life or give me death!' " A lot of guys seemed to know better, since many of them advised that Patrick Henry once had said, "Give me liberty or give me death."

* * *

We got a big kick out of looking over men's clothes this year; not in the shop windows nor in the stores, but the clothes doctors wear. You know this cuffless age does show up one's wardrobe. If one essays a suit the pants of which sport cuffs, you know the model is a rather old one or that the wearer has connived with his tailor and cheated a bit. So we just looked around, seeing who was up-to-the-minute and who was being thrifty. As for ourselves we put one over; we had our tailor de-cuff a couple pairs of pants, hence had two new-model suits!

* * *

We had a "dental annex" to our recent Indianapolis convention, having invited some of the officials of both the State and National Dental Associations. That this gesture was well received by the members of the allied profession is indicated by letters that have come to headquarters since the meeting. Captain Raymond C. Wells, chief dental officer of that section of the Procurement and Assignment Service, and president-elect of the National Dental Association, opined that this invitation was a fine expression of cooperation between the dental and medical professions. Captain J. A. Tartre, Senior Dental Officer, U. S. Naval Station, Great Lakes, and Doctor Roy D. Smiley, president of the Indiana Dental Association, both have sent letters to headquarters in appreciation of the many courtesies extended.

* * *

Carl McCaskey wrote a whole page in a recent number of THE JOURNAL regarding a log boom he saw up in the Arrowhead country in Minnesota this past summer. During the convention he continually was buttonholing everyone he could get to listen to an elaboration of the story about the "Gator." Heck, we could write a book about log booms, gators and the men who operate them. We really got our information from headquarters and by personal contact. While up in the Rainy River country in Canada, we went well up to the headwaters of the La Seine River, where log booms pass down most every day. The captain of the outfit sorta made headquarters at our camp, pulling in for a few hours every time he passed up and down the river. We made a complete tour of the gator, visiting every part of the boat; checked the galley and the store room, captain's quarters as well as those of the crew and even the guest room. We even played a little poker with the captain and some of the crew, all of whom proved to be a little better at the game than we. Incidentally, the two huge Diesel engines that powered the boat were made in Columbus, Indiana.

Bob Doty, rather new to procedures in the House, came through like an old-timer; Bob uses few words in a discussion, but they are timely.

* * *

Two newly-appointed members of the Editorial Board, Maynard Austin and Minor Miller, raised plenty of h—— because they were called from their front row seats at the smoker entertainment to attend an impromptu session of the board.

* * *

Henry Waterson, Lake County entrepreneur, first class, carried on with a number of diversified jobs during the convention. He was chief errand boy for The Blonde Secretary, principal doorkeeper at the various luncheon sessions, and also served as private secretary of Harry Howard, the committee tycoon.

* * *

It is interesting to see a big town wake up. We go to bed, lulled by the husky though loud-toned voice of the newsman on the corner below us saying, "Morning Star"; sleep comes along, and until about five a.m., we hear no more city noises. Then they begin: first the birds in University Park, then the cooing and the flapping of the pigeons' wings, next a car or a truck passes, and by seven the city is away — all set for another day.

* * *

Jake Oliphant, president-elect of the Indiana State Medical Association, better known as "The Sage of Sullivan County," missed not one thing while at the convention, nor does Jake miss hearing anything said within earshot. He even can hear —and understand — when he hears someone say, "Come up to Room 300." Jake is invariably the first one there. To our mind, as we used to say down around Frankfort, we are in for another good year, with Jake as our leader.

* * *

The lure of convention activities was too much for Alexander, of Terre Haute, to resist. For some time past he has been among the missing, but the "lure of the sawdust ring" was too much; he just had to come on over. We later learned that he had a special invitation and was given a special assignment for the occasion, to represent the press and to cover the water front. We do not know what it means, but Alex was tickled pink over the special assignment.

* * *

A few weeks ago we put up some green tomatoes, Kosher style, dill, garlic and all that goes for making a delicious bit of eating later on in the season. Never having essayed this before, we had some misgiving about how well it had been done. In a night stroll about town we came across a special restaurant window in which was displayed several gallon packages of these tomato pickles and, by dint of quite some questioning, we ascertained that *our* method of procedure was according to Hoyle. So, and if, when we get back home and find more green tomatoes in our war garden, we plan to again go into the canning business.

Doctor Floyd O. Woodward, president of the Iowa State Medical Society, dropped in to see how the Hoosier boys do things in annual convention. He was on his way to see a son who is in training at DePauw University.

* * *

One noticeable lack at the annual smoker was the utter absence of a good war song. In 1917-18 we had a dozen or more ringing, singable songs, but so far the present war has not brought forth an outstanding hit.

* * *

Jack Jones, on nearing Indianapolis, made the startling discovery that in packing his bag his wife had failed to include several highly-necessary articles. His toilet set was left out, as was his Sunday suit. The latter was particularly distressing, for he was to address the Surgical Section and wanted to look especially nice for that event.

* * *

Berta Jones sure got the thrill of her life when in viewing the "Medsoc" exhibit she discovered a letter and a blown-up picture of her brother, Don Herold. Don, by the way, rated "Medsoc" not only because he is one of the country's best humorist-artists, but also because he is currently the head of the Indiana University Alumni Association.

* * *

This observation might be a bit on the Scot side, which happens to be our nationality, but we do want to make the declaration that there is one place in Indianapolis where one can get a shoeshine that is a honey — one that will last for the duration. We accumulated one of these on Monday afternoon; wore it throughout the session and it still was good when we got back to the Calumet region.

* * *

The Commercial Exhibit, to our notion, was the best organized, most attractive we ever have seen at an Indiana Medical Association convention. With a flag-covered ceiling and the red, white and blue predominating throughout the exhibits, the exhibit hall presented a beautiful picture. The area was spacious, to the extent that there was no crowding, affording convention visitors ample room to see every article displayed. The exhibitors, without exception, declared themselves highly satisfied with their visit with us.

* * *

The "Monday Nighters," that small coterie of the more elderly members who always arrive the day before the official opening of the convention, was noticeably smaller than in former years. George Daniels, as usual, led the van in this particular, some saying he had spent the entire weekend in the capital city. Ira Perry was one of the earlybirds, came down to watch the early morning workouts, as was Davy Crockett. Henry Waterson, the Boss of Lake County Medicine, is one of the newer members of this group. As a matter of course, all the Brass Hat group was on hand bright and early.

President's Page

Newspaper Publicity

The press has been exceedingly generous to the medical profession in Indiana. This was evidenced by the amount of publicity which was given to the state association before and during the recent annual session. It was more than liberal in the amount of space given during the meeting. There were some twenty-four headlined releases in the Indianapolis papers alone. Throughout the year the Bureau of Publicity of the association was given space almost weekly. This was always in the form of news to the public about medicine and medical affairs. I know of no newspaper that will not go the limit in giving our association the widest coverage when asked to do so. The editorials which are released are always favorable to the practice of medicine as we have known it in the past. I therefore wish to express my sincere gratitude to the press of Indiana.

November

Now comes the month of November and all that goes with it. This is the month when nature changes her garb from a gala-colored effect to the more drab character of winter. It would be hard to visualize a more beautiful fall than we have had this year. I trust this does not indicate that we will have a severe winter.

Thanksgiving

November brings us Thanksgiving Day. We must be thankful that we are living in a free country with free churches, free schools, free speech and free voting. We must be thankful that we can lie down at night and sleep in peace with all the physical comforts which go with home life, this including hygienic and sanitary surroundings, light and heat, and plenty of food. Our transportation has not been hampered too much, and there are many more conditions which I might mention if space permitted. I might add that those of us on the home front have not made too many sacrifices, and for all this we should be thankful.

For those who are in the armed forces we are thankful that they are the best-equipped, the best-fed and the best-trained, and that they have the best medical, dental and nursing care, the best spiritual care, and the best food of any armed force in the world today.

We offer our thanks to the valiant heroes who have gone down battling for your freedom and mine. These men and their families have given of their all for the cause of freedom and peace, so this Thanksgiving Day we bow our heads in reverence to them.

Have we anything to be thankful for this year? Yes, indeed, for all the things I have mentioned and for many, many more. Personally, I am thankful that I am an AMERICAN CITIZEN.

I trust that by November, 1944, we shall have come to the end of this tremendous world conflict, and that it will be the beginning of a lasting peace. I trust the whole world may join us in celebrating our next Thanksgiving Day.

J. H. McCarthy

(This is a continuation of the article published in the May and September, 1943, issues—Editor's Note.)

PIONEER PHYSICIANS AND SURGEONS OF MONTGOMERY COUNTY, INDIANA

GEORGE T. WILLIAMS, M.D.
CRAWFORDSVILLE

SCOTT TOWNSHIP

No settlement is reported to have been made in Scott Township prior to 1821. On account of the delightful and almost famous springs of clear, cold water located in this section, settlements were made where Parkersburg is located. One of these ever-flowing springs has been beautified by our State Highway Department.

The following physicians have been located in this township: Drs. Henry Rogers, John W. Straughan, Kent K. Straughan and William Henry Hyten.

John W. Straughan, M.D., was born in Shelby County, Kentucky, October 8, 1831. The family moved to Putnam County, Indiana, in 1833. His early life was that of a pioneer boy. After securing enough education, under difficulties, to teach school, he followed that profession in the winter months and studied medicine in the summer, with Dr. William Mathies, a noted physician in Putnam County. In 1852 he entered the Indiana Medical College for one term, and then entered the University School of New York, graduating in 1854. He immediately located at Parkersburg, undergoing all the hardships incident to the practice of medicine in early days. He always had a desire to finish his course at the Indiana Medical College, and he did—graduating in 1881. He was a life-long member of the Montgomery County Medical Society and a member of the Indiana State and the American Medical Association. He died suddenly from a cerebral hemorrhage June 13, 1911, in his eightieth year.

Kent K. Straughan, M.D., son of the above physician, was born in Montgomery County, Indiana, March 6, 1857. At the age of fifteen he entered the Russellville graded school and remained four years; then entered the Indiana Medical College and graduated in 1878. He settled in Parkersburg in the same locality where his father successfully practiced for twenty-eight years. He then located in Browns Valley for several years, then moved to Waveland where he practiced until his death in 1926. I knew Dr. Straughan well, he being my preceptor. He was a capable physician and did an extensive practice. He left a son, Dr. Walter L. Straughan, who succeeded Dr. J. F. Davidson and is now chief medical examiner for the Ben Hur Life Association.

William Henry Hyten, M.D., was born in Montgomery County, Kentucky, October 12, 1823, and died at the home in Parkersburg, April 14, 1911. His parents came to Indiana in 1833. About 1848 he began the study of medicine with Dr. De Pew at Danville, Indiana. He commenced practice at that place. He came to Putnam County, Indiana, in 1856, and in 1864 came to Parkersburg where he remained until his death. He was the type of old family physician who wore the high silk hat and the double-breasted Prince Albert coat, as was the custom of that day.

Henry Clay Rogers, M.D., was born August 15, 1844, near Parkersburg, Indiana. He graduated from the Indiana Medical College in 1872. He practiced medicine in southern Montgomery County and Hendricks County before moving to Rockville, Indiana, where he now resides, at the age of ninety-eight. On Sunday, May 17, 1942, I visited him at the home in Rockville and found him to be well preserved mentally and physically. From his general appearance and actions he is a man of much younger years.

BROWN TOWNSHIP

My great grandfather, Benjamin Van Cleave, came from Shelby County, Kentucky, and located in Brown Township in the year 1821; cleared about three acres of land, built a cabin, and then returned to Kentucky. In the spring of 1823 he returned to Indiana, bringing his family. He was active in the social and religious life of the community. In 1826, by order of the Board of Justices, it was ordered that Scott Township be divided and a new township be constituted for civil purposes, to be known as Brown Township. In 1835 the town of Waveland was platted. Shortly after, Dr. James Cunningham located here and erected the second building in Waveland, where he resided during his practice here. He was succeeded by Dr. Chester G. Ballard.

Chester G. Ballard, M.D., was born in Wendell, Massachusetts, January 14, 1792, and died at Perrysville, Indiana, June 21, 1858. He was located at Waveland at the time of the state medical convention held at Indianapolis, in 1849, being elected to membership on June 7, 1849. He was one of seven from Montgomery County to be elected to membership. He later moved to Perrysville, where he died June 21, 1858.

Joseph P. Russell, M.D., was born in Bourbon County, Kentucky, July 23, 1815, and died at Waveland, Indiana, February 11, 1893. At the age of twenty-four he began the study of medicine with Dr. J. T. Russell of Montgomery County, Kentucky. In 1840 and 1841 he attended Transylvania University at Lexington, Kentucky, and soon engaged in an extensive practice of medicine in Mont-

gomery, Morgan and Trimbold Counties, Kentucky. In 1845 he came to Waveland, Indiana, where he soon entered into a lucrative practice. By his long years of experience he was classed among the best of the county. He was a literary man, being the author of a book of poems, "Shades of Death and Other Poems." The following is one of his poems:

THE DOCTOR

The doctor's arduous toil, few ever know,
Called here and there, at all unseasoned hours;
He bravely meets the sifting rain and snow,
While the impending cloud above him lowers.

No torrid heat of noonday's scorching rays,
Nor borean blasts of northern piercing gale,
Nor darkness of the midnight's blackened haze,
Can daunt the doctor, or his spirits quail.

But on, and on he goes; e'en Sunday's rest
Is not for him to share, or call his own;
Well pleased is he when others by him blessed,
Have thankful hearts for favors by him shown.
(And pay their bills, ere they too old have grown!)

'Tis thus the doctor toils from day to day,
Mid ceaseless labors diverse in their kind;
A self denial marks his devious way,
Through humane work, to which his all's resigned.

(JOSEPH P. RUSSELL)

Armstrong T. Steele, M.D., was born in Owen County, Indiana, in 1834. He received a thorough education at Greencastle, came to Waveland, Indiana, and began the study of medicine under Samuel G. McNutt, M.D. In 1857 he graduated from the University of Louisville, Kentucky, and soon entered into a lucrative practice at Waveland. He gained a widespread reputation as a physician and surgeon. He once served as president of the Montgomery County Medical Society. He was a member of the Indiana State Medical and the Tri-State Medical societies. He died in 1884.

Reese D. Kelso, M.D., was born in Waveland, Indiana, in 1866. He was educated in the schools of Waveland, graduated from Wabash College in 1888, after which he entered Rush Medical College, Chicago, graduating with the class of 1892. After his graduation he located in his home town, Waveland. I knew Dr. Kelso. He was a high-class gentleman and a well trained physician, well deserving his increasing patronage. To the profession his early demise came as a distinct loss, only four years after graduation. He died in 1896.

Arthur J. Kleiser, M.D., was born in Montgomery County, Indiana, in 1862. He graduated from the Baltimore Medical College, now Johns Hopkins University, in 1884. He located in Waveland where he served the community faithfully and enjoyed the confidence and respect of the profession for many years. He was an honest and able disciple of Aesculapius, was a good man skilled in healing—one whose friendship the writer prized most highly. His health failed and he retired from active practice for a few years before his death, August 20, 1942.

Zopher Ball, M.D., was born in 1832 and died in 1895. He graduated from the Rush Medical College in 1865. He located in Waveland in 1865 and practiced there continuously until 1895. I knew Dr. Ball in my early professional life. He was kind and ready to help the young doctor with his knowledge gleaned from years of experience. He was a trustee of Brown Township for two terms. He was a member of this society for many years, and was a talented and safe counselor. He was the father of our Dr. T. Z. Ball.

John Henry Orear, M.D., was born in Montgomery County, Kentucky, October 20, 1822, where he received his early education. He graduated from the Medical College of Cincinnati, Ohio, and came to Indiana about the year 1852 to find a location for the practice of medicine. He began to practice with Dr. Henry Rogers, who was located in the southern part of Montgomery County, northeast of Russellville. He married the stepdaughter of Dr. Rogers, Mary Ellen Kirkpatrick, the forepart of the year 1853, and they immediately located in Browns Valley where he practiced medicine until the year 1867. They moved to the old colonial home near North Salem, Indiana, where they lived until 1872, and moved to Jamestown, Indiana, where he died December 25, 1891. He was the first physician to locate in Browns Valley after the town was laid out by Mathias Van Cleave in 1836.

I deem it a great privilege to state (at this late date, May 28, 1942) that Dr. Orear was the obstetrician in attendance at my birth.

David F. Olinger, M.D., was born near Greenville, Tennessee, in 1835. He died at Browns Valley, Indiana, on February 27, 1893.

During the term of 1859 and 1860 he attended lectures at the Nashville Medical College. At the outbreak of the Civil War he enlisted as a surgeon in the Confederate Army of Western Tennessee. He served two years with this organization, and in 1863 was taken prisoner and sent to Camp Douglas at Chicago, where he was held a prisoner until the close of the war. After the close of the war all prisoners were exchanged, and he came to Montgomery County, Indiana. He located at Browns Valley, following Dr. Orear who left in 1867. He was especially successful in the treatment of the diseases of children and enjoyed an enviable practice.

Isaac Andress, M.D., located in Browns Valley a number of years before his death in 1881 and enjoyed a good practice. He was a Christian gentleman and was liked by all who knew him. His passing was a great loss to the community.

Lorenzo Dow McKinley, M.D., came to New Market in the early history of the town. He remained there about one year, then migrated to Illi-

nois and later to Iowa, then back to Marshall, Indiana, where he remained until his death. Date of birth and death not known.

George Washington Hall, M.D., was born on a farm near Browns Valley, Indiana, June 18, 1869, of pioneer parents. He was educated in the schools of Brown Township; graduated from Wabash College with degrees of B.S. and A.M., and from the Rush Medical School. He located in Chicago after graduation, being first assistant to Dr. Brower for several years. At the death of Dr. Brower, he was appointed an instructor, later an associate professor and finally clinical professor of Mental and Nervous Diseases on the Faculty of the Rush Medical College, which position he held until the time of his death. He was also an attending physician on the staff of Cook County and St. Luke's hospitals. He was the author of a number of theses on Mental and Nervous Diseases. His death occurred suddenly in Detroit, Michigan, where he had gone to address a medical group on October 25, 1941. While Dr. Hall did not practice in Montgomery County, nor hold membership in our Association, yet we claim him "as one of our boys that made good."

Stephan A. Hall, M.D., was born near Browns Valley, Indiana, March 25, 1864. He received his early education in the schools of Brown Township, the Ladoga Academy and Valparaiso University. For a number of years he was a teacher in the schools of the county. He took up the study of medicine and graduated from the Kentucky School of Medicine, at Louisville, in 1894. In January, 1896, he located in Advance, Indiana, where he practiced for forty-one years. His death occurred at Louisville, Kentucky, February 20, 1937, following an automobile accident. D. P. Hall, M.D., of Louisville, Kentucky, son of the above physician, graduated from the University of Louisville Medical Department. He took special courses in surgery at Berlin, Germany, and Vienna, Austria. He is one of the best known of the younger surgeons of Louisville, and is professor of surgery at his Alma Mater. At present he is with the armed forces with rank of major general.

William Edgar VanCleave, M.D., was born near New Market, Indiana, in 1877. He graduated from the Kentucky School of Medicine at Louisville, Kentucky, in 1905. He located in New Market, Indiana, for a short time and then entered government service, being located at Tohatchie, New Mexico, later being transferred to Talihina, Oklahoma, where he assumed the superintendency of the government hospital of the Choctaw and Chickasaw Indian Reservation. He is still located here at this time.

William Wakefield Steele, M.D., was born at Waveland, Indiana, in 1860 and died in 1898. He graduated from the Rush Medical College, and after graduation practiced with his father, Dr. Armstrong Steele, for several years in Waveland, later moving to Judson, Indiana, where he resided at the time of his death. He was a man of fine personality, well trained in his profession, but was cut off in the prime of his professional career and usefulness.

Samuel D. McNutt, M.D., was born in Virginia, January 5, 1827. He was a graduate of the Jefferson Medical College, Philadelphia. About 1850 he came to Waveland, Indiana, where he continued practicing until his death February 26, 1860. He was a brilliant man and enjoyed a large practice, but died in his early professional career.

RIPLEY TOWNSHIP

The first settlement to be made in Ripley Township was in 1820 or 1821. Alamo was laid out in 1837. Yountsville is located on Sugar Creek, and was made famous by woolen goods made there by the Younts and their descendants. The industry was established in 1840.

The earliest physicians in the township were: Drs. Richard Herron, William Thomas Mullen, Thomas W. Florer, James McClelland, Alfred McClelland and Matthew H. Bounell. Later ones were: Drs. Joseph Tyndell Sparks, Iral T. Brown, Alonzo F. Brown, Marquis Bass, Jesse N. Talbott, Abijah H. Henry, Theodore F. Brown, William F. Webb and Fred A. Dennis.

Richard Herron, M.D., was born in Butler County, Ohio, January 16, 1813. He was the youngest of the large family of Thomas Herron, early pioneers in the township. He took up the practice of medicine first at Millville, Ohio; later moved to a farm in Montgomery County, Indiana, and at last located at Cutler, Carroll County, Indiana, where he practiced over a large territory up to the time of his death in 1885.

William Thomas Mullen, M.D., was born in Montgomery County, Indiana, June 1, 1830. For a few years he was a practicing physician at Yountsville, Indiana, and was highly esteemed, but he developed tuberculosis and died June 1, 1860, at the age of thirty years.

Iral T. Brown, M.D., was born in Perry County, Kentucky, October 30, 1826. He died in Alamo, Indiana, in 1907. He was a student with Dr. Thomas W. Fry, a distinguished physician and surgeon, in the forties. He attended the Ohio Medical College. In 1848 he opened an office in Waynetown, remaining there one year. He then moved to Alamo where he established a lucrative practice which he maintained for fifty-eight years.

Matthew H. Bounell, M.D., was born in Clinton County, Indiana, in 1828 and died at Lebanon, Indiana, in 1896. He graduated from the Rush Medical College in 1856. In 1850 and 1851 he was in partnership with his cousin, Dr. Thomas W. Florer, at Alamo, Indiana, for a short time. In 1851 he moved to Yountsville, Indiana, where he remained until his death. In 1863 he raised Company G, Indiana Infantry with the rank of captain and was later major surgeon, serving until the close of the war.

Thomas Wilson Florer, M.D., was born near Waynesville, Ohio, November 25, 1822. He died

at Corsicana, Texas, May 10, 1907. At the age of ten he removed with his mother and grandparents to Indiana, where he received his early education in the country schools of that state. He began the study of medicine under a private preceptor, Dr. A. S. James of Brookville, Indiana. He graduated from the Ohio Medical College on March 5, 1850. He began the practice of medicine in Alamo, Indiana. Later he practiced in Crawfordsville, Indiana, till he enlisted as surgeon in the 26th Indiana Regiment, serving both in field and hospital. He served on General Lew Wallace's staff, and the two were close personal friends. He was transferred in 1862 to Vicksburg, Mississippi, for hospital work. He was mustered out of service at Vicksburg, January, 1866. He made his home near Meridian, Mississippi, until 1875, when he moved to Waxahachie, Texas, practicing medicine until 1905, with the exception of two presidential terms, when he served as postmaster at that place under Presidents Arthur and Harrison. In 1849 Dr. Florer was a delegate to assist in the organization of the Indiana State Medical Association, at Indianapolis. He represented Montgomery County, Indiana, and was made one of the vice-presidents of the body. He kept a record of the proceedings of the association for eight years, and later had them bound in one volume, which volume he presented to the state medical association. In recognition of this gift, he was elected an honorary member of the association. In 1899 he attended the Golden Jubilee of the Indiana State Medical Association, held in Indianapolis, being one of the four living charter members of the state association. He was a member of the Methodist Church and also a Mason. He was buried by that order in Waxahachie, Texas, May 11, 1907. (The above was prepared by Dr. Florer's daughter, Miss Nena Florer, of Corsicana, Texas, to be found in the State Medical Transactions, 1907.)

Alonzo Fry Brown, M.D., was born in Alamo, Indiana, in 1865 and died in 1910. He was graduated from the Indiana Medical College with the class of 1879. He began the practice of medicine with his father in Alamo, remaining there after the death of his father until his demise in 1910. Dr. Brown and his father were safe physicians.

Alfred McClelland, M.D., was born May 11, 1811, and died February 11, 1862. He practiced in Yountsville for a number of years.

Joseph Tyndell Sparks, M.D., was born in Montgomery County in 1853 and died in 1926. He practiced for a few years in Alamo and then moved to Yeddo, Indiana, where he practiced until the time of his death in 1926.

William P. Webb, M.D., was graduated from the Medical College of Ohio in 1881. He was located at Yountsville, Indiana, in the nineties. He moved to Morgan County, where he died in 1901.

Marquis L. Bass, M.D., was born in Vermont, July 5, 1831. In 1853 he began the study of medicine with Dr. A. S. Newton, continuing three years; in February, 1857, he graduated from the Ohio Eclectic Medical School. After this he practiced medicine and spent three years in the South. He came to this county in 1861 and lived in Yountsville four years, Waynetown six years, and settled in Crawfordsville in 1871. He had a large practice and was the proprietor of the medicines known as "Dr. Bass's Famous Remedies."

While practicing in Yountsville he performed a surgical operation which makes an interesting item in its history. A veteran soldier was home on furlough, and while out hunting, shot his arm, shattering the bone and grazing an artery. The artery burst and the arm had to be amputated. As the roads were muddy, the doctor could not get his instruments in time, so, with jack knife and carpenter's saw, he performed the operation in about fifteen minutes. Jesse Titus was the anesthetist, Elijah Clark watched the pulse, and Caleb Stonebraker was first assistant to the surgeon. In ten days the soldier was up and about, his arm perfectly healed in due time.

Theodore F. Brown, M.D., was born in 1844 and died in 1919. He served in the Civil War from 1861 to 1865. After the war he entered the Miami Medical College and graduated with the class of 1869. In 1870 he moved to Crawfordsville, Indiana, and was associated with his uncle, Dr. Samuel G. Irwin, for two years. He then moved to Yountsville, Indiana, where he remained in active practice until 1884, when he located in Sanford, Vigo County, Indiana, where he remained until the time of his death in 1919.

Abijah F. Henry, M.D., was born December 20, 1835, and died March 29, 1898. He graduated from the Rush Medical College in 1866. He practiced in Waynetown, Alamo and Crawfordsville.

John S. Ensminger, M.D., was born in Crawfordsville, Indiana, September 12, 1859. He graduated from the Crawfordsville High School with the class of 1878, the second class to graduate from the school. He read medicine with his uncle, Dr. Samuel L. Ensminger, and then entered the Miami Medical University, where he graduated in 1884. He located in Wingate where he practiced for a few years before coming to Crawfordsville and Alamo. He later moved to Oklahoma where he practiced until his death in the early nineteen hundreds.

For Highlights of the Council meeting, see page 621.

The House of Delegates' report will be published in December.

Medicine Today

LABORATORY NOTES

This is the sixth of a series of short notes in which will be outlined various aspects of the use of laboratory tests. The increasing burdens of medical practice make it desirable to use all possible means to facilitate the care of patients, and the use of laboratory aids in the diagnosis and management of cases may often save time if the tests are carefully chosen to suit the needs of the moment. It is hoped that these notes may be helpful to the physicians of the state, and that they may be the means of saving a few minutes of their precious time.

LABORATORY AIDS IN THE DIAGNOSIS OF TYPHOID

The modern diagnosis of a case of typhoid fever is almost entirely a laboratory procedure, especially since most cases seen now are sporadic and epidemics are uncommon. Usually the diagnosis is based on a positive Widal reaction, but all too frequently a case is overlooked because the Widal is negative at the time that it is taken. However, there are a number of other laboratory tests which may be used as aids in the diagnosis of a case of typhoid and to differentiate and identify other diseases which may be confused with typhoid. Some of the more important of these tests are enumerated below. This is obviously not a complete list, nor is it possible in this short discussion to describe the tests in any detail.

A. Tests of Primary Importance

1. Widal reaction.
2. Leukocyte count.
3. Blood culture.
4. Stool culture.

B. Additional Useful Tests

1. Diazo reaction.
2. Urine culture.
3. Bile culture.
4. Additional agglutination tests.

DISCUSSION

A. Tests of Primary Importance

1. *Widal reaction. Normal reaction: negative.*

In non-inoculated individuals a positive reaction in a titre of 1 to 50 is fairly good ground for a diagnosis of typhoid fever, while a titre of 1 to 80 is almost certain evidence of typhoid. In patients who have been inoculated with typhoid vaccine it is often difficult to interpret the results of the Widal reaction, and other tests should be used and carefully correlated with the Widal reaction. It is customary to perform agglutination tests for Paratyphoid A and B when a Widal is done.

2. *Leukocyte count.*

a. *Total leukocyte count. Range of normal values: 5 to 9 thousand per cu. mm. of blood.*

Leukopenia is usually found in cases of active typhoid unless there are septic complications, such as pneumonia, peritonitis, or pyelitis. A high fever with a leukocyte count below 5,000 is very suggestive of typhoid and deserves further study.

b. *Differential leukocyte count. Range of normal values of lymphocytes: 20 to 30 per cent of all leukocytes.*

The leukopenia in typhoid fever is almost entirely due to a decrease in the normal number of neutrophilic leukocytes, which results in a relative lymphocytosis. If in a suspected case the lymphocyte percentage rises above 30 per cent, it should be regarded with suspicion.

3. *Blood culture.*

During the first two weeks of typhoid fever the blood culture is the most dependable means of making a positive diagnosis. Almost 90 per cent of all cases of typhoid will have a positive blood culture during the first week of the disease, while the Widal reaction is still negative.

4. *Stool culture.*

More than half of all cases of typhoid fever will have a positive stool culture during the first three weeks of their disease. The stool culture should be repeatedly negative before a case is discharged as non-infectious.

B. Additional Useful Tests

1. *Diazo reaction.*

A positive diazo reaction is usually found in the urine of a case of typhoid fever from the fourth to the fourteenth day of the disease. However, other disease conditions may produce a positive reaction. Thus, this test is chiefly useful as a means of excluding the possibility of a typhoid fever when the reaction is negative.

2. *Urine culture.*

The urine culture may be positive for typhoid bacilli when the stool is negative. However, it is seldom positive if the blood culture is negative. It may be helpful when used in conjunction with stool and blood cultures.

3. *Bile culture.*

Culture of the duodenal contents for typhoid bacilli may be used as a means of detecting typhoid carriers since most of them continue to excrete the organisms in their bile after recovering from the acute disease.

4. *Additional agglutination tests.*

In addition to the Widal reaction other agglutination tests frequently are desirable in suspected typhoid as a means of differential diagnosis. Para-

typhoid A and B agglutinations are usually carried out when the Widal test is performed. Other useful tests are agglutination reactions for tularemia, undulant fever, and the Weil-Felix reaction for typhus and Rocky Mountain spotted fever. Skin tests for tularemia and undulant fever may be added as additional means for differentiating these diseases from typhoid fever.

UNDER THE CAPITOL DOME

INCREASE IN MENTAL CASES IN WARD AT INDIANAPOLIS CITY HOSPITAL

An increase of more than one-third in the number of patients admitted to the psychopathic ward at the Indianapolis City Hospital since America entered the war and the city became a war-production center is noted by officials of the hospital.

This heavy increase in admissions, in the opinion of Dr. Kenneth G. Kohlstaedt, assistant superintendent of the hospital who has direct charge of the psychopathic ward, is a by-product of the abnormal conditions under which many citizens try to live.

Under war conditions the population of Indianapolis has increased materially, but, Dr. Kohlstaedt pointed out, the number of admissions to the psychopathic ward has gone up far more than could be accounted for simply on the population increase basis.

The social and economic conditions brought about by the war, the stress and strain under which many people live, the attempt to "burn the candle at both ends," produces the "crack up" that lands these people in the psychopathic ward. They are folks who all their lives have been potential material for the ward.

Dr. Kohlstaedt said that he does not believe that it is the work alone, granting that many workers do put in long hours and sometimes at odd hours, such as the swing shift, that produces the "crack up," but in his opinion it is the "extra curricular activities" that do the harm.

There are many contributing factors; life is so mixed up these days; so many people see their careers blighted; there is so much pressure and tension that persons who are constitutionally unstable are likely to, and do, snap under the strain.

During the first six months of this year a total of two hundred sixty-three patients were admitted to the psychopathic ward, suffering from various intensities and types of mental disorders. That was considerably more than one a day. Since then there has been no drop in the number of admissions.

Until recently alcoholics made up a sizeable proportion of those admitted. Many of our people, Dr. Kohlstaedt pointed out, are not capable of handling the large wages they receive—more money than many of them ever dreamed of having; there isn't much they can spend their money for, what with shortages and rationing, and some of them drink too much, are unable to "take it," and find themselves as patients in the psychopathic ward as alcoholics. But now the number of alcoholics is dropping. This is a direct result of the shortage of liquor on the markets.

Looking over the whole field of economic and social conditions, Dr. Kohlstaedt observed that "the same conditions which are causing a large increase in the number of divorces are the conditions which are leading people to the psychopathic ward." A veritable maze of conditions and situations, social and economic, all working together—all the by-product of the war economy and wartime life—produce the effects that cause the "crack ups" which land people in the psychopathic ward.

Dr. Kohlstaedt pointed out an interesting difference between the effect of the war and the effect of the recent depression. During the blackest part of the depression, he recalled, there were numerous suicides; at the worst time there were four or five suicides or attempted suicides a day. Now there are practically none. A suicide, or suicide attempt is very rare.

Under the direction of Dr. Charles W. Myers, superintendent, the Indianapolis City Hospital has recently completed a new psychopathic ward to help take care of the increased burden. It is exclusively for women patients and has a capacity of nineteen. The old ward accommodates forty patients, including the "prison ward," for detaining prisoners. The "prison ward" accommodates twelve persons.

Dr. Kohlstaedt pointed out that the ward is employing shock therapy, and it is hoped that this will reduce the number of persons committed to the state institutions for mental cases.

At the same time that the work of the psychopathic ward is increasing, work in the other branches of the hospital is falling off; whereas in preceding years when the psychopathic cases were fewer, work of the other parts of the hospital was increased.

Approximately one-third of the persons admitted to the ward for observation later became institutional cases. The remainder are released to their families, returned to their legal residences outside the city or state, or are sent to other departments of the hospital for treatment of other diseases. A sizeable number who reach the psychopathic ward through police channels finally wind up serving prison sentences after attending physicians determine that they are not insane or otherwise

mentally unfit. A small percentage of the patients are committed to the State Hospital for the Criminally Insane, at Michigan City.

Recently Dr. Kohlstaedt made a tabulation of the final disposition of one hundred four cases which passed through the ward. The result was: twenty-nine were sent to the Central State Hospital; two were transferred to mental hospitals in other states; two were sent to the Veterans' Hospital at Marion; twenty were released to their families; five were returned to their legal residences outside the Indianapolis community; twenty-two were committed to the state prison or the reformatory; seventeen were found to be suffering from a physical condition that caused their mental disturbance, and were sent to other wards of the hospital for treatment, and seven died in the ward.

STATE MEDICAL BOARD ACTION

The Indiana State Board of Medical Examination and Registration revoked the licenses of two doctors at its meeting in Indianapolis, October 5. Those whose licenses were revoked were Eugene Schumacher and Ira M. Washburn, both of Rensselaer. Alleged narcotic law violations were the reasons for both revocations.

The state board reinstated two doctors whose licenses had been revoked previously. They were Dr. Scott R. Edwards and Dr. Madge P. Stephens, the latter of Terre Haute.

The board announced that results of the examination of applicants for Indiana licenses, which was held September 14 to 16, will be available at the next meeting which will be held during the latter part of November.

ABSTRACT

WAR SURGERY IN A MILITARY HOSPITAL IN THE MIDDLE EAST

The salient features of war surgery in a British military hospital in the Middle East during part of the North African campaign are discussed by *The Journal of the American Medical Association* for October 2 as follows:

"During the last nine months of 1942, 3,279 battle casualties were admitted to one military hospital on the lines of communication in the Middle East. Because of the enemy's rapid advance to El Alamein the arrival of wounded was so rapid that the hospital had to act as a casualty clearing station rather than as a base hospital. The mortality rate for the 300 casualties from Tobruk was 3 per cent and for the 500 casualties from the second battle of El Alamein it was 10 per cent. The mortality rate for 2,679 casualties from the first battle of El Alamein, when the hospital acted as a casualty clearing station, was only 1.3 per cent. The high mortality rate for the casualties from Tobruk and from the second battle of El Alamein is due to the fact that seriously ill patients were sent to the hospital.

"The figure 1.3 per cent is approximately accurate for most casualty clearing stations. In analyzing the results, Lieut. Col. R. K. Debenham [in the *British Medical Journal*] emphasizes that all of the wounds dealt with were a result of fighting in dry sandy desert, that the amount of clothing worn was very small so that only rarely was clothing found in a wound, and that sulfanilamide was used prophylactically. As a routine 10 Gm. was dusted into the wound and another 10 Gm. after operation; 5 tablets (2.5 Gm.) were given by mouth at 6 a. m. and 6 p. m. daily for four days. The good results obtained in abdominal cases, particularly in those with bowel perforation, were due to early operation. Of the 11 patients with bowel perforation, the 9 who recovered were operated on in forward areas and were kept there from five to sixteen days; the cardinal points seem to be early operation, late evacuation, intravenous saline drip continuous gastric suction and sulfadiazine. This is difficult with mobile warfare but was possible when the line of battle was static.

"The worst cases of burns came from fighting in tanks. Because facilities for preliminary cleansing were not obtainable, tanning was discarded in favor of cleansing and powdering the area with sulfanilamide and dressing with petrolatum gauze. Patients traveled best with plenty of padding and in the cases of wounded limbs a light, well padded plaster of paris cast was definitely beneficial. In the early stages intravenous plasma or serum was considered essential. Blood transfusions were used for secondary anemia a week or ten days later. Patients with severe burns traveled badly, even up to two weeks after burning. After a long journey they arrived toxic and ill. It is easy to put too much sulfanilamide powder on the burns, especially in severe cases, as sulfanilamide is readily absorbed from burned areas and gives rise to profound toxemia. Blood and plasma or serum transfusions were used for shock, for burns and during convalescence when the hemoglobin fell below 60 per cent. Gas gangrene has been rare and gas infection uncommon. No case of tetanus has been seen. . . .

"The salient features of war surgery in the Middle East are based on the principles which have been in the process of evolution since the beginning of the war. They are summarized as follows: organized resuscitation and the use of local and general sulfanilamide; thorough immobilization; conservative surgery and wound trimming instead of wound excision; avoidance of tension around wounds and provision of a good blood supply in damaged limbs, and the necessity to adapt and improvise articles to fulfill functions for which they were not intended."

Deaths

Captain Badertscher

DIED IN MILITARY SERVICE

Captain Robert Carl Badertscher, of Bloomington, died in an Army bomber crash at Iquito, Peru, South America, early in September. He was a flight surgeon and was attached to a charting group of the air forces. The accident occurred while Captain Badertscher with his crew were on a searching mission for the plane of his squadron commander.

Captain Badertscher was twenty-eight years of age, was a graduate of the Indiana University School of Medicine, and was the son of Dr. J. A. Badertscher of the Indiana University School of Medicine. He is survived by his wife, Mrs. Martha Badertscher, a nine-month-old daughter, his parents and a brother, Darwin.

He was a member of the Monroe County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Captain Badertscher was buried on September seventh with full military honors.

Lieutenant Kurt B. Klee, of Indianapolis, was killed in action the first day of the Allied invasion of Sicily. He was thirty years of age. Lieutenant Klee was in the Paratrooper Division, having entered the Army April 10, 1942. He graduated from the Indiana University School of Medicine in 1940.

Dewitt C. Shaff, M.D., of Clinton, died October seventh, at the age of seventy-four. He was a graduate of the Rush Medical College in 1907.

Joseph O. Paul, M.D., of New Castle, died September thirtieth. He was sixty-two years of age. He was a graduate of the Medical College of Indiana, Indianapolis, in 1905.

Henry M. McCracken, M.D., of Argos, died September eleventh, aged seventy. He graduated from the University of Louisville School of Medicine, Louisville, Kentucky, in 1907. Dr. McCracken was a member of the Marshall County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Daniel A. Campbell, M.D., of Boonville, died at his home on October second, aged seventy-two. He graduated from the Kentucky University Medical Department of Louisville, Kentucky, in 1904.

Olen C. Stephens, M.D., of Evansville, died September thirteenth, aged fifty-eight. He graduated from the University of Louisville School of Medicine, Louisville, Kentucky, in 1915, and was especially interested in surgery. Dr. Stephens was a first lieutenant in the Medical Corps in World War I. He was a member of the Vanderburgh County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

ABSTRACTS: SAYS HISTAMINE THERAPY MOST PROMISING TO DATE FOR MENIERE'S DISEASE

From his experience with twenty-two patients, John J. Rainey, M.D., Troy, N.Y., reports in *The Journal of the American Medical Association* for July 24 that he believes histamine treatment of Ménière's disease is the most promising method of treatment up to the present time. Ménière's disease syndrome, he explains, is the name given to a group of symptoms in which vertigo, nerve deafness and tinnitus predominate. Most of the attacks of vertigo occur without previous warning and often are terrifying in their intensity. It is generally accepted that the symptoms of the disease are the result of a local disturbance of the inner ear.

Dr. Rainey treated his twenty-two patients by injections into a vein of histamine phosphate, giving at least two and in some cases three treatments on alternating days. Seventeen of the patients had striking results. With five patients the results were disappointing, but further studies are being carried on. The use of histamine for this disease was first reported in 1939 by B. T. Horton.

Military News

Captain Marion H. Morris, formerly of Indianapolis, is now at the Station Hospital at Randolph Field, Texas.

Former Gary physician, Captain Heinrich G. Kobrak, is now on duty in the post surgeon's office at the port of embarkation at San Francisco.

We have been informed that Captain Clarence E. Bunge, formerly of Logansport, has returned from overseas and has completed a course at the School of Aviation Medicine, Randolph Field, Texas. He will next report to Mitchell Field, New York. Captain Bunge was recently hospitalized for three weeks with malaria.

Colonel Harry L. Dale, commanding officer at Billings General Hospital, has announced the promotion of Dr. Durward W. Paris to a captain. Captain Paris is from Kokomo.

Former Crawfordsville physician, Fred N. Daugherty, who has been overseas with a station hospital in North Africa, has been promoted to a major.

Dr. Sam J. Davis, formerly of Brazil, has recently been advanced to the rank of major. He is specializing in aviation medicine, and is located at Will Rogers Field, Oklahoma City, Oklahoma.

Lieutenant Commander John W. Ferree, of the U. S. Navy, is now in charge of a medical unit at Grosse Ile, Michigan.

Word has been received that Lieutenant Commander Stewart H. Crossland, formerly of Gary, was wounded in action in the Pacific area last July. Commander Crossland is now at a hospital at Mare Island, San Francisco Bay. In a telephone conversation with Mrs. Crossland, thirty minutes after his arrival in this country, he expressed hope of seeing her soon.

Due to censorship regulations Major Joseph O. Flora, formerly of Indianapolis, cannot give his present whereabouts, but he states that although he is in an isolated spot he has been able to attend weekly medical meetings. Major Flora expressed appreciation for THE JOURNAL and the "Med-Soc" letters, and asked to be remembered to all his Indiana friends. At present he can be reached through A. P. O. No. 986, c/o Postmaster, Seattle, Washington.

A former Indianapolis physician, Major Robert D. Fry, is now serving as the Chief of Surgery in a station hospital, A. P. O. 185, c/o Postmaster, Los Angeles, California. He was transferred from Camp Crowder, Missouri.

Dr. Oliver W. Greer, former director of the Crippled Children's Division of the Indiana State Department of Public Welfare, now a colonel in the United States Army Medical Corps, has recently been transferred from Camp Polk, Louisiana, to Camp Barkley, Texas.

According to a post card received by his mother, Mrs. W. R. Hewlett, Captain Thomas Hewlett, a former New Albany physician, has been a prisoner of the Japs since the fall of Corregidor. The card states he is well, and not wounded. The card does not reveal his present location, but when last heard from he was in the Philippines.

Announcement has been made of the promotion of Dr. Charles Holland, former Bloomington physician, to the rank of captain. Captain Holland is stationed at Lincoln, Nebraska.

Dr. James G. Shanklin, of Hammond, has been promoted to a captain in the Medical Corps of the United States Army. Captain Shanklin is stationed at an Army airfield at San Marcos, Texas.

Major Daniel H. McKinney, formerly of Lafayette, is in Persia, and reported that he has had some interesting experiences. He is in charge of a new hospital unit there which, believe it or not, has cement floors and showers.

The address of Captain Joseph E. Kopcha, former Whiting physician, is now with an Air Force Service Command, A.P.O. 929, care Postmaster, San Francisco, California.

Colleagues of Major and Mrs. George R. Dillinger, formerly of French Lick but now located at Thomasville, Georgia, where Major Dillinger is serving as Admission and Dispensary officer at the Finney General Hospital, were indeed pleased to have them present at the state meeting. Major Dillinger is a delegate to the A. M. A., and Mrs. Dillinger has taken a prominent part in the Indiana Woman's Auxiliary, and both have a host of friends awaiting their return to Indiana after the emergency.

We have been favored with another copy of the Lafayette Home Hospital *News Bulletin*, which gives an interesting account of some of our Tippecanoe County members.

Lieutenant George W. Herrold, former Lafayette physician, is now at the School of Aviation Medicine, at Randolph Field, Texas.

Lieutenant Thomas Younan, of Lafayette, is in Sicily. He lost his personal belongings (including his cigarettes) during an episode there, but this did not hamper his duties.

Lieutenant Richard E. Gery, of Lafayette, has been a patient at the Percy Jones General Hospital, Battle Creek, Michigan, since September sixteenth with a cast shoe.

Lieutenant Karl C. Randall, Jr., of Lafayette, who has been with the United States Navy for two years is stationed somewhere in the South Pacific. He can be reached c/o The Fleet, San Francisco.

Captain Wayne T. Cox, formerly of Lafayette, is now taking a special course in tropical diseases at the Walter Reed Hospital, in Washington, D.C. At the conclusion of the course he expects to return to Fort Smith, Arkansas.

Captain Frank W. Peyton, of Lafayette, is now a liaison officer at an evacuation hospital in Sicily. His unit followed the North African campaign at Mateur, Bizerte, et cetera.

Major W. W. Washburn, of Lafayette, who landed with the invasion force at Casablanca, is still serving in North Africa as a flight surgeon. He was injured during the invasion but was soon back at his post caring for the boys.

Lieutenant Donald S. Ladig, formerly of Fort Wayne, has been promoted to the rank of captain, and has been transferred from Madison, Wisconsin, to an Army airfield at Homestead, Florida.

Members of the medical division of the base hospital organized and sponsored by Indiana University, for which induction ceremonies were held at the medical center on May 13, 1942, have arrived in England. The unit was originally scheduled to include seven hundred persons, including one hundred twenty nurses. After arrival at Camp Bowie, however, the unit was divided in order to meet the Army's need for trained medical, dental and nursing personnel, and the advices received at the medical center did not state how many of the original complement were included in the group arriving in England.

A change of address has been reported for Lieutenant F. M. Williams, Jr., a former Pendleton physician, who was transferred from Norfolk, Virginia, to the Allen Building, Dallas, Texas.

While here on a leave of absence from the Panama Canal Zone, Major Ralph U. Leser, former Indianapolis physician, found time to attend some of the scientific sessions at the state meeting.

A captaincy has been given to Dr. Henry M. Pickard, formerly of Elkhart but now stationed with a medical battalion in Sicily. Captain Pickard has been overseas fifteen months.

Captain V. K. Stoelting, formerly of Winchester, is taking a course in anesthesia and surgery at the University of Wisconsin. He was transferred from Fort Riley, Kansas.

Dr. Charles E. Stouder, of Gosport, captain in the Army Medical Corps, has been given an honorable discharge to resume his practice at Gosport. This town has been without a physician since Dr. Stouder left July 18, 1942.

Former Bloomington physician, James N. Topolgus, M.D., who entered military service with the Indiana University-sponsored General Hospital but later received another assignment, is now stationed at Fort Snelling, Minnesota. He has recently been promoted to a captain.

The address of Lieutenant Colonel F. E. Keeling, former Portland physician, is now an A. P. O. address, No. 929, c/o Postmaster, San Francisco, California.

In a letter to Dr. R. K. Webster, Major J. M. Palm, formerly of Brazil, describes a trip from "somewhere in Egypt" to Cairo and Palestine:

"I had a wonderful trip from here to Cairo and Palestine. I saw where the Limeys fought for two years and believe me, son, I salute those boys for even staying in the desert for two years, let alone fighting out there. We flew for about seven hours over nothing but sand, and I mean sand. There is more vegetation on one acre of the poorest Clay County land than I saw in the whole twelve hundred acres between Tripoli and Cairo. Incidentally, the Pyramids look just like their pictures. The temperature was some place between 120 and 130, and there isn't any shade. Cairo is an interesting town, and, except for the great number of British soldiers and the high price of everything, you wouldn't know that there is a war going on; about like most towns in the States. Other towns showed marked evidences of war. Biserte is level . . . . Tunis is a monument to the accuracy of our bombardiers . . . . Tripoli had for the most part cleared up the marks of battle."

WHAT WENT ON DURING WORLD WAR I

Only two articles were published in the scientific section, Doctor Burton D. Myers, of Bloomington, writing on "The Educational Qualifications for the Practice of Medicine," and Doctor C. F. Fleming, of Elkhart, discussing "Fistula in Ano."

* * *

The editorial section covered a rather wide range, the usual plea of early payment of the annual dues taking a foremost place in that section. (Editor Bulson believed that medical dues should be paid well in advance of the first of each year, stating on many occasions that if this were done the work of the association could be carried on to greater advantage.)

* * *

The editor also had much to say about "Spanish Influenza," which seemed certain to spread over our country in epidemic form.

* * *

"Scientific Progress Resulting from the War," also was discussed.

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Notwithstanding the large number of Indiana physicians in service, the carrying on of the programs of the local medical societies was strongly urged.

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As is usual in times of epidemics, some of the "patent medicine" folk were extremely busy. One in particular aroused the ire of the editor, when they advertised it as being the *sine qua non* in the treatment of influenza.

* * *

Some four pages of THE JOURNAL were required to list the number of recent additions to the Army Medical Corps.

* * *

Editor Bulson proved to be somewhat a prophet when he said, "It is generally conceded that if the Allies make peace before we have beaten the German army, we shall lose the war, and Germany will organize in the East, in her own way, and dominate Europe in the next generation."

* * *

The editor opined that prohibition would mean a tremendous loss in government income. (In the long years of intimate acquaintanceship with Doctor Bulson, we never were able to learn just where he stood in the matter of prohibition.)

From one hundred fifty to two hundred Indiana physicians were enlisting in the Medical Corps each month.

* * *

On April 18, 1917, there were just four hundred members of the Army Medical Corps; on November 1, 1918, this number had been increased to thirty thousand. A full list of Indiana members was published in this number of THE JOURNAL.

* * *

The Fourth Liberty Loan campaign had been completed successfully and Secretary McAdoo had congratulated the American people on the success of the program.

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The meeting of the American Public Health Association, scheduled for Chicago in December, was to be devoted chiefly to a discussion of influenza.

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Dr. Frederick C. Heath, an eye physician of Indianapolis and a former president of the Indiana State Medical Association, had died at his home.

* * *

The old Morton Hotel building, on the Circle, at Indianapolis, had been taken over as barracks for students in the medical and dental schools.

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Dr. Paul E. Bowers, former prison physician at Michigan City, but presently in the armed service, had written a book, "Pawns of Fate."

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This number of THE JOURNAL carried an unusual number of obituary notices, twenty-eight in all. Eighteen of these physicians had died from influenza or pneumonia, or a combination of the two diseases.

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Dr. Homer G. Hamer, associated with Dr. W. N. Wishard, having left for the Army, H. O. Mertz, of LaPorte, had moved to Indianapolis to replace Dr Hamer.

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It had been discovered that certain of the pharmaceutical and chemical plants in this country, making many preparations that were constantly in demand by physicians, were either under German control or rapidly becoming so. Ambassador von Bernstorff was charged with having been instrumental in bringing this about.

News Notes

Dr. Leon Gray, of Martinsville, who recently received an honorable discharge from the Army, will resume active practice at Martinsville.

According to a report from the Indiana Secretary of State, the Evansville Academy of Medicine has been duly incorporated, with Drs. Stanton L. Bryan, Charles C. Sutter and Robert R. Acre as directors.

A Fort Branch physician, Dr. B. C. Gwaltney, has been appointed assistant collaborating epidemiologist in the United States Health Service in Indiana, by Dr. Thurman B. Rice, Indiana Health Commissioner.

Dr. George A. May, of Madison, has left for Philadelphia where he intends to do post-graduate work in surgery at the University of Pennsylvania. Dr. May was recently discharged from the Army.

Dr. Paxton Powell, of Upland, has accepted a position at the Seaside Memorial Hospital, Long Beach, California. Doctor Powell was commissioned a lieutenant in the Army following his graduation from Indiana University School of Medicine last spring, but was later released because of a slight physical impairment.

The Medical and Surgical Relief Committee of America, of New York City, has announced that a donation of one hundred and ten dollars was received by this committee, from the Jefferson Township Home Economics club, of Ossian, Indiana. The funds are to be used for an emergency medical field set that will be turned over to the cruiser, U. S. S. Boston.

MEETING OF INDIANA ASSOCIATION OF THE HISTORY OF MEDICINE

A meeting of the Indiana Association of the History of Medicine will be held in the Staff Room at St. Vincent's Hospital, Indianapolis, on Wednesday evening, November tenth, at eight o'clock. An interesting discussion on "Medicine in Literature" will be presented by Dr. A. C. Corcoran, of the Lilly Research Laboratories. Anyone interested in the history of medicine is invited to attend.

Dr. F. M. Reynolds and Miss Almeda Gaier were married at Montpelier on September fifth. Dr. and Mrs. Reynolds will reside at Montpelier.

Dr. Will J. Martin, of Kokomo, secretary of the Department of Public Health of Kokomo, has been named health officer for the fourth term. In addition, he has served as school physician for six years.

Plans for the new state hospital at Evansville, to replace the institution destroyed by fire early this year, are practically complete and work is about to begin on the new buildings. The hospital will have room for 1,200 patients and will include a tuberculosis isolation unit.

WARTIME NUTRITION MEETING

"Nutrition in Wartime" is the theme of a post-graduate assembly sponsored by The Institute of Medicine of Chicago, to be held in the Grand Ballroom of The Stevens, November seventeenth and eighteenth. An extensive program has been arranged. For further information write to The Institute of Medicine of Chicago, 86 East Randolph Street, Chicago, Illinois.

Incorporation papers have been issued for the Evansville Academy of Medicine, Inc., a society recently organized by members of the Vanderburgh County Medical Society. Doctors Stanton L. Bryan, Charles C. Sutter, and Robert R. Acre are the incorporators. Members of the first board of directors, in addition to the above, are Doctors Keith T. Meyer, William M. Cockrum, William Lawrence Daves, Henry J. Faul, Daniel C. Tweedall, Pierce MacKenzie and James Y. Welborn. "To furnish and provide facilities for the advancement and improvement of medical and other scientific education of its members," and to provide "facilities and means for the dissemination of information and knowledge concerning new and useful discoveries and findings in the science of medicine and related sciences and fields of education" are the purposes of the academy, as set forth in the articles of incorporation. Members of the Vanderburgh County Medical Society and members of other county medical societies in surrounding territory will be eligible for membership. Purchase of quarters is expected to be financed by gifts from doctors.

According to Henry E. Pearson, superintendent of the Buildings and Grounds Department, the waiting rooms and the doctors' office at the addition to the University Health Center at Bloomington opened recently. The addition to the Center will be directed by Dr. Edith B. Schuman. When the building is completed, it will have a capacity of fifty beds.

AMBULANCES FOR COMMUNITY USE

The attention of visiting and attending hospital staffs is called by Dr. William S. Keller, Regional Medical Officer of the United States Office of Civilian Defense, to an unusual opportunity to relieve congestion of patients at hospitals.

Several hundred ambulance bodies, provided by the United States Office of Civilian Defense, are being made available to communities requesting them. The chassis to hold the bodies must be supplied locally. The hospital trustees or board of governors will in many cases want to endorse the purchase of the chassis when the matter is laid before them. Otherwise, fraternal, civic and other organizations, as well as grateful patients, may be more than glad to contribute the chassis. An attractive feature is that the OCD regulations permit the name of the donor to be painted on the chassis.

The securing of one or more of these ambulance bodies will enable hospitals to release patients more promptly. Since one of the important objectives of the OCD Emergency Medical Service is to make available as many emergency beds as possible, requests for ambulances can be regarded as very real contributions to the war effort.

OCD officials point out that in times of large-scale disaster, such as the New York and Detroit race riots and the recent large railroad wrecks and fires, normal medical facilities are inadequate to take care of casualties. These ambulance bodies, providing for four stretchers each, are designed to meet such emergency conditions.

The design of the ambulance body has been approved by the Corps of Engineers of the Army. The body can be easily mounted on the chassis of 1939, 1940 or 1941 four-door model Fords, Chevrolets and Plymouths from which the rear part of the body behind the front seat has been removed.

The bodies have a number of unusual features, besides the space for four stretchers. Loading can be accomplished without climbing into the vehicles. There is enough room for an attendant to ride in the stretcher compartment, and he can communicate with the driver by means of a specially-built window.

Hospital administrators and other medical practitioners interested in having these ambulance bodies made available for their use are urged to get in touch with Doctor Keller at the U. S. Office of Civilian Defense, Medical Science Building, Columbus 8, Ohio. His telephone number is MAin 6371, Columbus.

INDIANA UNIVERSITY NEWS NOTES

Members of the Medical Division of General Hospital No. 32, organized and sponsored by the Indiana University Medical Center, have arrived in England following field training at Camp Bowie, Texas, according to word received at the medical center.

The general hospital unit is composed of doctors, dentists and nurses from Indiana. Its members were inducted at ceremonies held at the medical center on May 13, 1942, with Governor Henry F. Schricker, Mayor Reginald H. Sullivan, and President Herman B Wells and President Emeritus William Lowe Bryan of Indiana University, as speakers. Organization of the unit, originally scheduled to include seven hundred persons, including one hundred twenty nurses, was in charge of Drs. C. J. Clark and Charles F. Thompson. After arrival at Camp Bowie the unit was divided in order to meet the Army's need for trained medical, dental and nursing personnel, and the advices received at the medical center did not state how many of the original complement were included in the group arriving in England.

Seventy-three per cent of the students in the Indiana University Training School for Nurses have made application to join the new United States Cadet Nurse Corps and wear the Corps' cocky Montgomery beret and gray uniforms, it has been announced by Miss Cordelia Hoeflin, director of nurses' training at the University Medical Center.

The I.U. school is one of six in the state to date approved for the Cadet Nurse Corps by which the United States Public Health Service expects to train sixty-five thousand nurses to meet military and civilian needs and avoid rationing of nursing care. Other nurses' training schools in Indiana which so far have been approved for the Cadet Corps include St. Mary's, Evansville; Protestant Deaconess, Evansville; St. Elizabeth's, Lafayette; St. Joseph's, South Bend; and St. Anthony, Terre Haute.

Membership in the Cadet Corps is voluntary on the part of student nurses at the approved schools, but those accepted for the Corps will be trained at government expense, receiving tuition and $15 during the nine-month pre-cadet training, tuition and $20 monthly for twenty-one months as a junior cadet, and a minimum of $30 as a senior cadet assigned to the hospitals of her own school, other civilian hospitals or selected community health nursing agencies, or to Federal hospitals. In return the Cadet Corps member agrees to remain active in essential nursing in either civilian or military service throughout the war.

Applications for membership in the Corps, Director Hoeflin said, have been made by 28 per cent

of the seniors, 80 per cent of the juniors, and 95 per cent of the freshmen in the Indiana University school. As soon as arrangements can be made, those accepted will don for street and other public appearances the regulation uniform recently selected at a New York fashion show.

Society Reports

INDIANA STATE MEDICAL ASSOCIATION

COUNCIL

First Meeting

(Indianapolis Session, September 28, 1943)

The first meeting of Council was held in Parlor B, Claypool Hotel, Indianapolis, at 12:30 P. M., Tuesday, September 28, 1943; the chairman, Dr. F. T. Romberger, of Lafayette, presiding.

Roll call showed the following members present:

Councilors:

First District—I. C. Barclay, Evansville
Second District—H. C. Wadsworth, Washington
Third District—W. H. Garner, New Albany
Fourth District—J. C. Elliott, Guilford
Fifth District—A. M. Mitchell, Terre Haute
Sixth District—Samuel Kennedy, Shelbyville
Eighth District—E. H. Clauser, Muncie
Ninth District—F. T. Romberger, Lafayette
Tenth District—N. K. Forster, Hammond
Eleventh District—Ira Perry, North Manchester
Twelfth District—H. L. Murdock, Fort Wayne
Thirteenth District—Alfred Ellison, South Bend

Officers:

C. H. McCaskey, President.
J. T. Oliphant, President-elect.
A. F. Weyerbacher, Treasurer.
E. M. Shanklin, Editor of THE JOURNAL.

Members of Executive Committee:

C. A. Nafe, Chairman.
Albert Stump, Attorney.
T. A. Hendricks, Executive Secretary.

Member A. M. A. Board of Trustees:

R. L. Sensenich.

Delegates to A. M. A.:

D. F. Cameron.
F. S. Crockett.
H. G. Hamer.
George R. Dillinger.

General Arrangements Committee: Gordon W. Batman, Chairman.

Legislative Committee: Norman Beatty and J. William Wright, co-chairmen.

American Red Cross: Herman M. Baker.

H. F. Nolting, chairman, Advisory Committee to the Bureau of Maternal and Child-Health.

Thurman B. Rice, State Health Commissioner.

R. E. Jewett, director, Bureau of Maternal and Child-Health, Indiana State Board of Health.

On motion of Dr. Forster, seconded by Dr. Murdock, the minutes of the midwinter meeting of Council, as printed in the February number of THE JOURNAL, were accepted as read.

THE CHAIRMAN: The formal Councilor reports were printed in the September JOURNAL and the Handbook of the House of Delegates. Are there any comments or changes to be made at this time? If not, they will be accepted as published.

Dates for next year's district meetings should be set as soon as possible and sent to the headquarters' office in order that conflicts may be avoided. The only meeting, so far as we are advised, for which the date is set is that of the Thirteenth District, which will be held at Huntington, October twentieth.

Unfinished Business

THE CHAIRMAN: The report of the Auditing Committee has been published in the handbook. What will you do with it?

(On motion of Doctor Mitchell, duly seconded, the Report of the Auditing Committee, as published, was accepted.)

THE CHAIRMAN: There have been no matters referred to the Council by the Executive Committee. We will now have a five-minute report of the chairman of the Executive Committee.

Report of Executive Committee

DR. CLEON A. NAFE, CHAIRMAN: As you know, the committee has met diligently, and we have enjoyed the presence of all members of the committee, except during the last few months when Doctor Asher has been ill. He is in bed. I have called upon him, and he tells me that it will be some time before he will be out. He looks to be in good health and seems to be enjoying his rest—reading good books and becoming well-informed. I think from all indications he will regain his health, but he will be in bed for some time, I am told. If any of you wish to drop by, he is now receiving company. The Executive Committee misses him very much—sorry he cannot be with us.

I think you are pretty well informed concerning the actions of the Executive Committee through the year, and the only thing I will discuss at this time, with your consent, is the supplementary report that we wish to present to the House of Delegates concerning the question of group malpractice insurance, and this is the report. I will read it.

The Executive Committee has considered the advisability of recommending Group Malpractice Insurance to the members of the State Association.

This proposal was presented to the council at its winter meeting, and they approved the consideration of such a plan.

The Executive Committee has considered this problem for the following reasons:

1. The cost of malpractice insurance has increased considerably in the last several years, especially in the more densely populated areas. We have been told that this is because of increased number of malpractice suits and the resulting losses, including the high cost of medical defense. The Executive Committee doubts that this is true from what records we have available at the association headquarters. Whether it is, or not, a concentrated effort should be made to discourage such suits since practically none of them have any merit.

2. We have received complaints that one company which carries a large number of these risks has consistently advised doctors to take only $5,000 and $10,000 coverage, advising them that such coverage is sufficient. The Executive Committee does not believe that this is true if a loss in court is really sustained.

3. Approximately sixteen state associations and many individual county associations have group policies in force. The state associations with whom we have talked have materially reduced the cost of insurance to the doctor and lessened the number of these suits and the losses sustained by this plan. This has been accomplished by close cooperation between the insuring company and the physicians of that individual state through their central and subcommittees concerned with this problem.

4. Our conference with insurance officials convinces us that a material reduction can be accomplished if the majority of the doctors are insured in one company and if the state association through such committees will aid in discouraging and defending these suits. It has been the experience elsewhere that by this method the rate of insurance can be systematically reduced. This is particularly true in Connecticut, where the state association has pioneered this movement.

The suggested plan is as follows:

From the companies that are interested, a responsible company would be selected on the basis of the best rates offered, the standing of the company and other desirable features.

The standard contract suggested is a $10,000 and $30,000 coverage.

Each physician could buy this insurance from the regular agent in his community or from any licensed insurance broker. Each physician might select a larger or smaller coverage with corresponding adjustment of the premium.

The standard premium would be the same for all doctors in the state doing the same type of practice, there being a standard rate for men in general medicine and a higher rate for surgeons and those using x-ray and radium.

It would be advantageous to adopt such a plan only if the physicians of this state thoroughly approve of it and only if at least a majority become a part of it.

The Executive Committee has studied the problem and look upon it favorably. We are submitting it to the House of Delegates for your consideration.

Respectfully submitted,
EXECUTIVE COMMITTEE:
Cleon A. Nafe, *Chairman*,
C. H. McCaskey,
J. T. Oliphant,
Floyd T. Romberger,
N. K. Forster.

THE CHAIRMAN: Is there any comment? If not, this will be referred to the House of Delegates this afternoon.

The next item is "Obstetrical care of wives of service men." I understand that there will be considerable discussion of this question in the House of Delegates on Thursday morning. Is there any comment?

H. C. WADSWORTH: In my home county the government is paying more for this kind of care than the doctors charge under similar circumstances. Theory and practice always falls down when confronted with easy money, so there is not much to be said in my district.

THE CHAIRMAN: I think Doctor Nolting has something to say on this subject.

H. F. NOLTING: I believe I understood the Doctor to say that the fee schedule that we have arranged is above the fees in his county. Is that right?

H. C. WADSWORTH: Yes.

H. F. NOLTING: We realize that the fee schedule is above that of some communities in the state. On the other hand, it is below that of others, so we have tried to take a fair average, and the average, for that matter, is above the average for the state. Of course, we cannot have a fee schedule in one community lower than that in another community, unless the doctors wish to make it so. Do you wish to charge less?

H. C. WADSWORTH: No, we do not. Of course, the eighteen million dollars was uncalled for, for these men who are getting aid are getting more money than they ever got in their lives, but with this eighteen million dollars "gravy," they are all scooping it up.

THE CHAIRMAN: If the chairman may make a few remarks, it seems to me that this is a very striking example of every state and federal agency proposing to interfere with the affairs of the local county society. I do not believe that any state or federal agency has a right to interfere with medical practice in Tippecanoe County. I believe the doctors of Tippecanoe County can and do regulate

their fees to meet the needs and requirements of the particular family, and when the government interferes with the physician-patient relationship in that county it is wrong. The physicians can better serve the public weal than any state-directed forces or federal-directed forces. That is my own personal belief. Doctor Rice, have you anything to say, or Doctor Jewett, anything that is informative? All the matters to be considered today should go before the House of Delegates this afternoon.

THURMAN B. RICE: I want you to believe that I am interested in maintaining private practice. There are a lot of things being done now that we hope will not be continued in the period when we are not at war, and I believe and hope as thoroughly as anyone that when that period arrives we will be in the position in the State Board of Health of not having anything to do with private practice. That is our wish. All this is a terrible headache to us. We feel very strongly that Congress, in making this appropriation without seeing the problems they were creating, merely wanting to do something for the soldiers, who, as they say, are fighting for us, have done something that is extremely popular with Congress. There was no dissenting vote in the House on this eighteen-million-dollar appropriation. This is something that is extremely popular with the public, and laymen do not think about the outcome; they think it is a fine thing; the boys in the armed forces feel the same way about it. I am very anxious that the medical profession shall not do something that will be misunderstood. We know what your purpose would be if you go against your principle, and we agree with your purpose, but I do not believe we would be able to get the public to see what you are driving at. I think it would be misinterpreted, in which case it might result in a step toward socialized medicine. Congress itself is liable to pass a bill that will draft fathers. They will take these fathers, and they will have children, of course, and I should not be at all surprised if they should go farther and say, "All right, we have taken these fathers—we will pass a bill appropriating a hundred million (maybe a lot more than that) and will take over all the medical care of these families of soldiers." I do not know whether that is in the offing or not—I do not say it in so many words—but I know it is just over the hill. I do not believe that we want anything like that; we have enough headaches as it is. Take it from me, this whole business is a headache for us. I know you would rather that the money were paid to the recipient and she pay the doctor. So would we—as soon as the birth certificate came in we would be relieved, and we would be tickled to death if it were that way. But I am not urging even that. But all the questions that have come up, and the misunderstandings, are laid at the door of the Board of Health, and it is too bad for us. We do not want that kind of a medical program, whether it is the prevention of disease or taking care of infectious diseases. We wish heartily that we had nothing to do with it. It reminds me of the story of the soldier who, with his pregnant wife, was making the rounds of the hospitals trying to find a room. He was scared to death, and after pacing the floor awhile he thought he had a solution. He went to his wife and said, "Honey, are you sure you want to go on with this business?" I can assure you that if there was any way out we would be glad to know it, but I think it is just about as inevitable as labor pains when the nine months is up. We will do our best to do a good job, and will try as far as we can to protect the interests of private practice, because there are only two things we believe in—public health and private practice.

The purpose itself is good, but the methods are bad. You see the method, and Congress and the public do not. If we handle it in such a way that the public mistakes our purpose, then it would be a very serious matter for the medical profession, and I would not want to have anything to do with it. I am sure you do not want any favor from the Federal government if it can be done any other way, because we know the trouble we have with the Federal government. However, it is here and some states are in favor of it, and others are not. Ohio, for example, held off until they got some bad publicity, and Michigan held off until the American Legion got into it.

D. F. CAMERON: How would it be if the Board of Public Health should elect the county to take care of it, let the County Commissioners have charge of it, and distribute the money to each county? Must that money be handled through the State Board of Health?

DR. RICE: I could not answer that offhand, but I assume that such a plan would not be acceptable. Legally, the Children's Bureau works through the State Board of Health, and without being positive, I would feel that it would be impossible.

R. E. JEWETT: It is a legal problem, and I can anticipate what the answer would be because it has been suggested before, and that is that the Act itself states that this appropriation shall be made to purchase medical and hospital care, and the administrating agency, in order to stay within the legal limits, should be sure that the medical and hospital care has been purchased. If we had full-time health workers who were legally responsible to the agency representatives, it would be possible. It is possible in some states, but it does not happen to be in the State of Indiana. We have part-time workers here. I would say, personally, that there might be a feasible method of doing that. It could be tried, but I question whether it would be successful.

I would like to add one point to this report. The Executive Committee is well aware that when we took this up we were very definitely told that it would be limited to the four lowest classes—the enlisted men and those who were paid $78.00 and less. And then somebody got an opinion from the Attorney General as to the limitations as to whom this money could be paid, and his ruling was that

in the appropriation of this money it was not intended that anyone should be deprived of help who needed it. Three weeks ago Congress made the statement that the wives and families of men below commissioned officers were included. That was outside our plan. We did not change our plan, although we have arbitrarily made exceptions in a half-dozen instances. And now we are informed that a rider has been attached to the appropriation which will absolutely limit the Act to the four lowest grades. We believe it will go through. That is the only concession we have gained, I think.

H. F. NOLTING: Since we are on this subject, there are a few things that the councilors might be able to carry back to their different districts. I have a letter that I received yesterday from a county medical society that stresses several points that probably could be answered here and the information carried back to the various societies. It reads:

"There is a point in the care of soldiers' wives which our society would like cleared up. As we understand it, if a doctor accepts any fee for obstetrical service from one of these dependents he will not be paid anything through the State board."

If a soldier's wife comes to a doctor's office and does not bring along the blank and says nothing about wanting service under this plan, and during the interim he wants to accept the fee for examination and office calls, it is all right. Then after a while if she brings in this blank he can still charge the same as before. However, he cannot go ahead and say "My fee is $75.00 (or $100.00); you pay me so much and the government will pay me the rest." That will not work. This letter continues:

"Now here is the point: When the financial aid the government allows is explained to these people, some of them say they don't consider themselves 'ward' patients and will pay the difference in cost to the hospital for private rooms.

"In our opinion, anyone who feels that a ward is not good enough, should have to pay the difference between the $40.00 allowed the doctor for his fee and what his usual charges are for the same service. In other words, why should the doctor be the goat any more than the hospital?

"Kindly give us your ruling on this."

It is signed by the secretary-treasurer of the county society. They are supposed to accept this service on a ward basis and our hands are tied. The law says that and that is all there is to it. Then there is the matter of consultants. This program arranges for consultants in the various fields —obstetrics, surgery, x-ray, neurology, or whatever they may have to have to take care of the obstetric and pediatric patients. The committee has discussed this with the board of health, and we were of the opinion that each local society should choose their own consultants within the district or the community. They do not have to stay in that one county; they can go to the next county—we do not care where they get their consultants. We did make one stipulation, to which some have taken exception, that we would only consider those men who were recognized in their respective fields as consultants in a certain district. Outside of that we do not care who they are, although we do, of course, feel that they should have the best help they can have in the way of consultants.

THE CHAIRMAN: Doctor Nolting and his committee are holding meetings in the Empire Room of this hotel, and any member of Council, of the House of Delegates, or of the Association, who wishes to discuss these matters with them will find them there during the session.

A second feature is that a special reference committee on Maternity and Pediatric Care, of which Doctor Austin is chairman, has been appointed by our president, and a committee on Public Policy and Legislation, of which Doctor Howard of Lake County is chairman. They will hold meetings during the session.

The Executive Committee of this association has been criticized, has had some words thrown at it in regard to its actions. Throughout the state there seems to be an idea that the Executive Committee has usurped the powers of some members of the profession, and I will take time to read the action of the Executive Committee, as found on page 41 of the Handbook.

" 'The Executive Committee of the Indiana State Medical Association is sure that action taken by Congress and the State Board of Health with regard to maternity and pediatric care of needy wives and children of enlisted men will meet with the hearty cooperation of the medical profession of the State of Indiana.'

"The committee, however, is strongly opposed to the expenditure of federal and state monies to pay for medical services rendered any family of any individual, whether or not the head of the family is a civilian or a member of the armed forces, when he can afford to pay for medical attention which involves maternity and pediatric care."

I think that will straighten out the matter and prove that the Executive Committee is not accepting this wholeheartedly and without qualifications.

M. A. AUSTIN: We have a peculiar situation in Anderson in regard to the General Motors' insurance plan, which provides for an obstetrical fee of $50.00, and also provides for two weeks' hospital care at $4.00 a day. Inasmuch as the majority of these wives of service men are working, either in the Guide Lamp or the Delco-Remy, they can make application to the government for relief, and then take the $50.00 from the insurance and not spend a single cent of it—they put that down in their pocket as an extra.

THURMAN B. RICE: We approve thoroughly of what the Executive Committee has said. The only point we make is that the law says this is the right of any soldier, and there is nothing we can do about it. We disapprove of the principle thoroughly, but that is the way the law reads.

Report from Editor of Journal

E. M. SHANKLIN: We are indeed proud of THE JOURNAL we have been giving you the last year. It has been published in wartime, and therefore under more or less stress and strain. There are a few things about THE JOURNAL that perhaps you do not know, and one is that THE JOURNAL is published under the direction of Council.

We have had, for example, an untold amount of trouble over our mailing system. We send out considerably more than thirty-five hundred copies each month. Our mailing list at present is made up by counties, and it is an expensive proposition to make changes in the addresses each month. Sometimes there are thirteen or fourteen hundred changes in one single month. Your Executive Committee last night authorized the expenditure of about $140 to revise that system whereby we will use plates. I might say that $140 seems like a good deal of money, but it takes the time of one young woman for several days to take care of these changes. That will be obviated by this change.

Another point is that we can no longer secure an assistant for Miss Rokke for fifteen or sixteen dollars a week; twenty-five dollars is the least for which a worth-while assistant can be hired. For the last six months we have taken care of this extra expense.

The printing costs for 1944 may be higher than before, for reasons that are perfectly obvious to all of you. We recommend that the Council approve that the Executive Committee continue as at present in the matter of making contracts for the publication of THE JOURNAL.

There is one other thing that has upset the Council and the House of Delegates. Mr. Sandberg, the executive secretary of the Cooperative Bureau, sent us a notice asking whether or not we wish to accept liquor advertising, as a number of agencies are anxious to have this information before making a presentation to their clients. In the last fourteen days THE JOURNAL has turned down thirty-six pages of advertising of products not A. M. A. Council accepted.

There are, therefore, two things that the Council should act on: The proposition of having the Executive Committee continue to serve in the capacity of arranging contracts for the printing of THE JOURNAL, and the question of whether or not THE JOURNAL shall accept liquor advertisements in 1944.

(On motion of Doctor Wadsworth, seconded by Doctor Kennedy, the Executive Committee was instructed to continue making contracts for the publication of THE JOURNAL.

(On motion of Doctor Wadsworth, duly seconded, the Council voted not to accept liquor advertisements.)

Election of Editor of The Journal for 1944

(On motion of Doctor Forster, seconded by Doctor Wadsworth, Dr. E. M. Shanklin, of Hammond, was unanimously re-elected as editor of THE JOURNAL.

THE CHAIRMAN: For the information of the members of Council and guests, I would like to announce that Doctor Shanklin has recently been appointed on the Advisory Committee of the Cooperative Advertising Bureau of the American Medical Association, to act as consultant in their advertising setup.

Dr. Norman M. Beatty presented the matter of the employment by the Association of a Public Relations man, and after some discussion this matter, on the recommendation of the chairman and motion by Doctor Wadsworth, was postponed until the Thursday meeting of Council.

Election of two members to serve on Editorial Board

On motion of Dr. Mitchell, duly seconded, Dr. Herman M. Baker, of Evansville, and Dr. L. G. Montgomery, of Muncie, were elected to succeed themselves.

THE CHAIRMAN: The Council, at its special meeting on August 4, 1942, ruled: "That the Council shall appoint an editorial board of five members, no more than two of whom shall be from any one councilor district. These members shall be appointed for two, three, four and five-year terms, respectively. Hereafter the Council is to name one member of the editorial board each year at the annual midwinter meeting."

At the midwinter meeting of the Council on January 16, 1938, the motion was made and passed: "That the Editorial Board be increased to six members and that the term of each member be reduced to three years." The years of service of those already elected were to be pro-rated. At the midwinter Council meeting, January 10, 1943, Dr. M. A. Austin, of Anderson, and Dr. Minor Miller, of Evansville, were nominated for members of the Editorial Board. What is your pleasure?

(On motion of Dr. A. M. Mitchell, duly seconded, Dr. Austin and Dr. Miller were elected as members of the Editorial Board, to serve three years.)

Date for Midwinter Council Meeting

(On motion of Dr. Mitchell, duly seconded, Sunday, January 9, 1944, was set for the midwinter meeting of Council.)

Membership Problems

The question of the membership of men in the armed forces was discussed, the executive secretary, T. A. Hendricks, stating that some men were being deprived of membership owing to the neglect of county secretaries in notifying the headquarters office that the county society had arranged to carry these men for the duration. This was shown by the fact that while Indiana has 1,180 men in service, only 800 had been certified to the secretary's office.

Dr. R. L. Sensenich, of South Bend, special representative of the American Medical Association in Washington, discussed briefly the recently-

formed Council on Medical Service and Public Relations, the duties of which are:

"(a) To make available facts, data and medical opinions with respect to timely and adequate rendition of medical care to the American people; (b) to inform the constituent associations and component societies of proposed changes affecting medical care in the nation; (c) to inform constitutent associations and component societies regarding the activities of the Council; (d) to investigate matters pertaining to the economic, social and similar aspects of medical care for all the people; (e) to study and suggest means for the distribution of medical services to the public, consistent with the principles adopted by the House of Delegates, and (f) to develop and assist committees on medical service and public relations originating within the constituent associations and component societies of the American Medical Association."

Dr. F. S. Crockett, of Lafayette, discussed the organization in a number of states of groups to take care of migrant workers, many of them farm workers. These groups (formed by the government) consist of seven members, four of which are doctors. These groups have been in operation since July 1, 1943, supplying medical and hospital care for workers who are United States citizens, from either within or without the state. As originally worded, the charter provided that these groups should take care of low income farm workers in the state; that was changed to apply to migrant workers from within or without the state who could not get the attention they needed.

Doctor Wadsworth stated that while the report of the Second Councilor District appearing in the Handbook showed "There has been no instance of neglect in medical service in the District," this report was made as of August first, and since that time they had lost four doctors. Two of these men are in limited service, and might possibly be released and returned home. Doctor Wadsworth was advised to refer this matter to the War Participation Committee, of which Dr. C. R. Bird is chairman.

No further business appearing, the Council adjourned until Thursday morning following the meeting of the House of Delegates.

THOMAS A. HENDRICKS,
Executive Secretary.

THE COUNCIL

Second Meeting

(Indianapolis Session, September 30, 1943)

The second meeting of the Council convened immediately following the adjournment of the House of Delegates, Thursday morning, September 30, 1943; Dr. F. T. Romberger, the chairman, presiding.

Roll call showed the following members present:

First District	I. C. Barclay, Evansville
Second District	H. C. Wadsworth, Washington
Third District	A. P. Hauss, New Albany
Fifth District	A. M. Mitchell, Terre Haute
Eighth District	E. H. Clauser, Muncie
Ninth District	F. T. Romberger, Lafayette
Eleventh District	Ira Perry, North Manchester
Twelfth District	H. L. Murdock, Fort Wayne
Thirteenth District	Alfred Ellison, South Bend

Officers:

President, C. H. McCaskey, Indianapolis.
President-elect, J. T. Oliphant, Farmersburg.

Executive Committee:

C. A. Nafe, Indianapolis, Chairman.
Albert Stump, Indianapolis, Attorney for Association.
T. A. Hendricks, Indianapolis, Executive Secretary.

Employment of Public Relations Man

After considerable discussion, during which Mr. Hendricks discussed some of the problems confronting a Public Relations man in Indiana, it was moved by Dr. J. T. Oliphant, seconded by Dr. Wadsworth, that this matter be deferred until the Executive Committee has an opportunity to talk over with Mr. Hendricks what can be done, the matter then to be referred back to Council at the midwinter meeting. This motion carried.

No further business appearing, the Council adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

Complete House of Delegates' minutes will be published in the December issue of THE JOURNAL.

INDIANA STATE MEDICAL ASSOCIATION
GENERAL MEETING

September 29, 1943

The General Meeting was held in the Assembly Room of the Claypool Hotel, Indianapolis, September 29, 1943, convening at 9:30 A. M.; the president, Dr. C. H. McCaskey, of Indianapolis, presiding. Doctor McCaskey introduced Dr. W. P. Morton, president of the Indianapolis Medical Society, who extended greetings on behalf of that Society and paid tribute to the very efficient work of President McCaskey; Doctor Batman, in charge of general arrangements; Mr. Hendricks, executive secretary of the Association, and the various committees and members who made possible the success of this convention. Dr. Gordon W. Batman then made announcements regarding the various

meetings and entertainment provided for the members.

The President-elect, Dr. Jacob T. Oliphant, of Farmersburg, presided while Dr. C. H. McCaskey read the President's Address.

In the absence of Admiral Ross T. McIntire, M.D., Surgeon General, United States Navy, Rear-Admiral Dallas G. Sutton, of the United States Navy, addressed the assembly.

Reed M. Nesbit, M.D., Associate Professor of Surgery, University of Michigan Medical School, Ann Arbor, Michigan, read a paper entitled "The Modern Treatment of Prostatic Cancer—a Rational Basis for Delayed Hormone Therapy."

Norman H. Joliffe, M.D., Associate Professor of Medicine, New York University College of Medicine, New York, read a paper entitled "The Cause, the Signs and Treatment of Malnutrition."

Commander John F. Luten, M.C., United States Navy, Assistant District Medical Officer, Great Lakes, Illinois, read a paper entitled "Battle Casualties with Special Reference to the Use of the Sulfonamides."

Ernest Perry McCullagh, M.D., Cleveland, Ohio, read a paper entitled "Use of Hormones in Diseases of Women."

SECTION ON MEDICINE

The Section on Medicine met in the Assembly Room, Claypool Hotel, September 29, 1943. The meeting was called to order at 2:25 P.M., by the vice-chairman, George Willison, M.D., Evansville; the chairman, Donald E. Wood, M.D., of Indianapolis, being in the service.

Colonel Thomas T. Mackie, Walter Reed Hospital, Washington, D.C., read a paper entitled "Tropical Diseases—A War and Post-War Problem Affecting the Continental United States."

Larue D. Carter, M.D., Indianapolis, read a paper entitled "Neuroses Incident to War Strain—Their Effect on the Civilian Population." This was discussed by L. P. Harshman, M.D., Fort Wayne; Morris Balla, South Bend, and Doctor Carter.

Ernest Perry McCullagh, M.D., Cleveland, Ohio, read a paper entitled "Newer Advances in Endocrinology."

Election of Officers resulted as follows: Chairman: Eugene F. Boggs, M.D., Indianapolis; Vice-chairman: Wemple Dodds, M.D., Crawfordsville; Secretary: Marion R. Shafer, M.D., Indianapolis.

SECTION ON SURGERY

The Section on Surgery convened at 2:30 p. m., in the Chateau Room, Claypool Hotel, Indianapolis, Wednesday, September 29, 1943, with Dr. W. D. Inlow, M.D., Shelbyville, presiding.

The guest speaker was John M. Waugh, M.D., Assistant Professor of General Surgery, University of Minnesota Graduate School, Minneapolis-Rochester, Minnesota, who discussed "Vaginal Hysterectomy: Indications and a Method."

E. S. Jones, M.D., Hammond, read a paper entitled "Pancreatic Cysts with Report of Two Unusual Cases." Discussant was A. C. Badders, M.D., Portland.

George Collett, M.D., Crawfordsville, presented the subject, "Erythroblastosis Fetalis—A Case Report With Some Additional Observations on the Role of the Laboratory in the County Hospital." Discussion by A. S. Giordano, M.D., South Bend; H. W. Eggers, M.D., Hammond; F. D. Mittman, M.D., Huntington; and E. S. Jones, M.D., Hammond.

A. F. Weyerbacher, M.D., Indianapolis, presented a paper on "Psychological Considerations in Orchidectomy for Cancer of the Prostate." Discussed by Reed M. Nesbit, Associate Professor of Surgery, University of Michigan Medical School, Ann Arbor, Michigan.

The following officers were elected:

Chairman: William H. Howard, M.D., Hammond.

Vice-Chairman: George Collett, M.D., Crawfordsville.

Secretary: James Robert Doty, M.D., Gary.

The meeting adjourned at 4:20 p. m.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

The Section on Ophthalmology and Otolaryngology met in the Palm Room of the Claypool Hotel, Indianapolis, on September 29, 1943, at 2:00 p. m.; the chairman, O. G. Brubaker, M.D., of North Manchester, presiding. The following scientific program was presented:

Charles H. Ade, M.D., Lafayette, read a paper entitled "Ocular Problems Present in War Workers." Discussion by Hugh Kuhn, M.D., Hammond.

Kenneth L. Craft, M.D., Indianapolis, read a paper on "Nasal Allergy." Discussed by B. D. Ravdin, M.D., Evansville.

H. C. Wurster, M.D., Mishawaka, presented a paper on "Sympathetic Ophthalmia." Discussion by Charles Gillespie, M.D., Seymour.

The guest speaker was Peter C. Kronfeld, M.D., Chicago, who discussed "Indications for Paracentesis of the Anterior Chamber."

The following officers were elected:

Chairman: Cecil P. Clark, M.D., Indianapolis.

Vice-chairman: H. C. Wurster, M.D., Mishawaka.

Secretary: Kenneth L. Craft, M.D., Indianapolis.

SECTION ON ANESTHESIA

The Section on Anesthesia was called to order at 2:30 p.m. on Wednesday, September 29, 1943, in Parlor B., mezzanine floor, Claypool Hotel, In-

dianapolis; Dr. Ernest P. Buckley, M.D., Jeffersonville, presiding.

Lillian B. Mueller, M.D., Indianapolis, opened the scientific program with a paper on "Spinal Anesthesia for Caesarean Section." Discussed by Fred A. Thomas, M.D., Indianapolis; Charles N. Combs, M.D., Terre Haute; Grover L. Verplank, M.D., Gary and John Kelly, M.D., Indianapolis.

Charles N. Combs, M.D., Terre Haute, presented a paper on "Improvements in Anesthesia Technique and Analysis of the Records." This paper was discussed by George M. Rosenheimer, M.D., South Bend; Floyd T. Romberger, M.D., Lafayette; and M. C. Topping, Terre Haute.

George J. Thomas, M.D., Director, Department of Anethesia, University of Pittsburgh School of Medicine and University Hospitals, Pittsburgh, Pennsylvania, was the guest speaker, his subject being, "Pentothal Sodium, Range of Usefulness, Complications and Their Management." Discussed by Floyd T. Romberger, M.D., Lafayette; Lillian B. Mueller, M.D., Indianapolis; Charles N. Combs, M.D., Terre Haute, and Captain D. S. Thatcher, M.C., U.S.A., Billings Hospital, Fort Benjamin Harrison.

Election of officers resulted as follows:

Chairman: Russell W. Kretsch, M.D., Hammond.

Vice-Chairman: Harry Knott, M.D., Plymouth.

Secretary: John M. Whitehead, M.D., Indianapolis.

The meeting adjourned at 4:35 p. m.

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

September 27, 1943

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; J. T. Oliphant, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; E. M. Shanklin, M.D.; F. S. Crockett, M.D., and T. A. Hendricks, executive secretary.

Minutes of the meeting of August 22, 1943, approved with the following change in the paragraph regarding group medical defense coverage on page 12:

"It was suggested that Dr. Nafe make his report to the Council and to the House of Delegates at the annual session, with a recommendation that the Executive Committee go further into detail in the study of this matter."

The statement of receipts and expenditures and the budget for THE JOURNAL for August were approved.

Membership Report

Number of members September 27, 1943	3,241*
Number of members September 27, 1942	3,222
Gain over last year	19
Number of members December 31, 1942	3,259

* This figure includes 118 honorary members, and 845 men in service who received membership gratis.

1943 Annual Session, Claypool Hotel, Indianapolis, September 28 to 30

Instructional courses. Report made to committee that arrangements had been completed for these courses.

Admiral Dallas G. Sutton is to substitute for Admiral Ross T. McIntire.

Arrangements completed for annual dinner meeting.

The committee received word that Tom Taggart, who in former years often has been host to the state medical association for its annual meeting, was in an Indiana hospital. The committee approved the suggestion that flowers be sent to Mr. Taggart from the state association.

A pyrotechnical and chemical warfare display, to be conducted by the Ninth Naval District chemical warfare group, is to be held on the steps of the World War Memorial following the evening meeting Wednesday, September 29.

The committee approved the additional report to the House of Delegates from the Executive Committee, to be made by Dr. Nafe.

Legislative, Legal and Social Security Matters

National—

House Joint Resolution 159, carrying the provision for the appropriation of $18,620,000 for the extension of obstetrical and pediatric care for service men's families, now pending before Congress, discussed by the committee. Information in regard to this resolution had been telegraphed to each of the county medical societies with a suggestion that this was their opportunity to express their desires in regard to this measure. A room has been reserved for the use of the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health during the state meeting. Questions in regard to the matter of obstetrical and pediatric care of service men's families will be answered by members of this committee who will be on duty in this room throughout the convention.

Wagner-Murray-Dingell Bill.

Various resolutions to be presented to the House of Delegates, opposing this bill, brought to the attention of the committee.

Letter from State Chamber of Commerce in regard to this bill brought to the attention of the committee.

Resolutions from other states in regard to this bill brought to the attention of the committee.

Lake County Resolution demanding that the American Medical Association establish a Washington office and defining "Public Relations" brought to the attention of the committee. This resolution

is to be presented to the House of Delegates by the Lake County Medical Society.

Dr. Crockett reported upon contacts he had made with farm groups.

Local—

The committee discussed the legislative situation.

Organization Matters

Membership dues of men discharged from military service. The local membership of such a man, of course, is up to each local county medical society. As far as the state association is concerned, a man who is discharged from the Army or Navy will receive membership gratis in the state association for the remainder of the year in which he is discharged.

Medical Economics

The OPA says "No" to the request for extra gasoline for hay fever sufferers.

War Medicine

Arrangements completed for War Participation Committee meeting to be held September 29 in the Chateau Room, Claypool Hotel, in connection with Indiana Naval Medical Day.

State Board of Health

Dr. H. F. Nolting, chairman of the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health, Dr. Thurman B. Rice, State Health Commissioner, and Dr. R. E. Jewett, director of the Bureau of Maternal and Child Health of the Indiana State Board of Health, invited to Council meeting to discuss obstetrical and pediatric care for service men's families.

Report from Wisconsin in regard to action on this subject presented to the committee. All material upon this subject is to be turned over to Dr. M. A. Austin, who has been appointed chairman of the special reference committee to deal with statements and questions in regard to this matter.

Socialized Medicine

Forum of the Air. The committee instructed the headquarters office to obtain copies of the broadcast recently made upon the Wagner Bill and socialized medicine, in which Dr. Morris Fishbein and Dr. W. W. Bauer of the American Medical Association, and Henry Kaiser, Ernest P. Boas and labor representatives took part.

Dr. Romberger is preparing an analysis of Paul deKruif's book, *Kaiser Wakes the Doctors.*

Health Insurance and Group Hospitalization

Wisconsin has approved a voluntary insurance plan.

Reports of the Permanent Study Committee on Health Insurance and the Director of Research on Sickness Insurance, both of which advocate voluntary plans for Indiana, brought to the attention of the committee.

The Journal

Institution of a new system of keeping the mailing list in order, the initial cost of which will be approximately $149.16, approved by the committee.

Non-Council accepted advertising.

a. The committee approved accepting Holland-Rantos advertising on a month-to-month basis.

b. The committee refused to accept a thirty-six-page contract for 1944 from a company which had Council-accepted products but desired to advertise non-Council accepted products.

Liquor advertising. The committee felt that this was a matter that should be referred to the Council.

Complaint against statement in JOURNAL *concerning refugee physicians.* Report made to the committee of talk with those who had filed this complaint. The article complained of was reprinted from the *Michigan State Medical Society Journal.* Letter received from the Michigan society in regard to the source of the material for this article.

Medical Defense

Dr. Nafe to make a report to the House of Delegates upon group medical defense coverage.

There being no further business, the meeting was adjourned.

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

June 25, 1943.

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D.; C. H. McCaskey, M.D., president; and T. A. Hendricks, executive secretary.

Series of ten newspaper articles on "Indiana Doctors and the War," will start in *The Indianapolis News* soon. These will be run each day.

Release, "Good Food Will Win the War," approved for publication in July 10 papers.

Articles that appeared in *Hygeia* upon "Nutrition and Food" brought to the attention of the Bureau. The Bureau was of the opinion that so much is written upon this subject at the present time that perhaps other topics should be discusssed in the Bureau releases.

Newspaper releases prepared by the Illinois State Medical Society brought to the attention of the Bureau.

Report on medical meeting:

June 8, 1943—Hamilton County Medical Society, Noblesville. "Hypertension—Recent Advances." (Nine present.)

Brochure on the health educational program of the Chamber of Commerce of the United States discussed by the Bureau.

BUREAU OF PUBLICITY

August 13, 1943.

Meeting called to order at 4:00 P.M.

Present: H. G. Hamer, M.D., chairman, and T. A. Hendricks, executive secretary.

Minutes of the meeting held June 25 signed and a report made upon the informal meeting of the Bureau on July 16.

The release, "New Drugs and New Diseases," was approved for publication.

The annual report of the Bureau was approved.

Following is an outline of releases for the state meeting:

Wednesday, September 1 (afternoon papers)—General story.
Sunday, September 5—Scientific program.
Wednesday, September 8—Navy talent.
Sunday, September 12—Hoosier talent.
Sunday, September 19—Instructional courses.
Wednesday, September 22—General story from Navy angle.
Friday, September 24—Dental luncheon.
Sunday, September 26—Woman's Auxiliary.
Monday, September 27—Feature story.
Wednesday, September 29 (afternoon papers)—President's address.

Radio program for the state meeting was discussed and a tentative outline is to be prepared and presented for approval of the Bureau at its next meeting.

LOCAL SOCIETY REPORTS

Adams County Medical Society members met at the Adams County Memorial Hospital, at Decatur, on October sixth. A general discussion was held on current medical problems. Ten members were present at this meeting.

Carroll County Medical Society members held a dinner meeting at the Welcome Inn, at Delphi, on September ninth. Dr. H. Y. Mullin, of Rockfield, was the speaker.

Delaware-Blackford County Medical Society members held a meeting at the Ball Memorial Hospital, at Muncie, on September twenty-first. Dr. C. A. Marsh, Hagerstown; Dr. E. C. Davis, and Dr. F. W. Dunn, Muncie, presented cases. A discussion of the Wagner-Murray-Dingell Bill was also held. There were fifteen members in attendance at this meeting.

Elkhart County Medical Society members held a meeting at Elkhart on October seventh. A. H. Meier, M.D., of Northwestern University, spoke on "Malaria and Tropical Diseases Likely to Be Encountered in General Practice." Twenty-five members were present at this meeting.

Grant County Medical Society members held a meeting at Marion on September twenty-third. Dr. George R. Daniels, of Marion, was the speaker, his subject being "Future of American Medicine." Eighteen members were present at this meeting.

Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club on October fifth. Drs. William N. Wishard, William V. Woods, John R. Thrasher, Lyman R. Pearson, and C. F. Voyles gave case reports.

The October twelfth meeting was arranged by the surgical staff of Billings General Hospital. Captain Donald Thatcher spoke on "Choice of Anaesthesia in Emergencies."

At a meeting held on October nineteenth, Drs. C. B. DeMotte, James Davis, E. B. Lamb, and Charles Weller spoke on problems of industrial medicine.

On October twenty-sixth the Indianapolis Medical Society was addressed by Dr. Raymond Rice and Dr. Frank Teague, of Indianapolis, who discussed "Arthritis," and by Dr. Phillip Reed, who spoke on "Arthritis—Medical and Surgical Aspects."

LaPorte County Medical Society members met at the Michigan City Country Club on September sixteenth. Dr. L. J. Witkowski, of LaPorte, was the speaker. There were twenty-four members present at this meeting.

Madison County Medical Society members held a meeting at Anderson on September twentieth. They were addressed by representatives of the Delco-Remy and Guide Lamp C.I.O., locals 622 and 663, the Military Order of the Purple Heart, Disabled American War Veterans and the Veterans of Foreign Wars, who outlined a project to secure for St. John's Hospital, of Anderson, an iron lung for the use of the residents of Madison County.

Miami County Medical Society members held a meeting at the Bearss Hotel, at Peru, on September twenty-fourth. Lieutenant Commander Howard B. Weaver, physician and surgeon at the Peru Naval Air Base, was the speaker.

Monroe County Medical Society members held a meeting at the Graham Hotel, at Bloomington, on September twenty-second. It was a general business meeting and there were ten members present.

Randolph County Medical Society members met at Winchester Club House, Winchester, on September fifteenth. Dr. W. S. Dininger, of Winchester, presented unusual x-ray films. There were twelve members in attendance.

DISTRICT MEDICAL SOCIETIES

THE TENTH COUNCILOR DISTRICT MEETING

The Tenth District Medical Society held its annual fall meeting September eighth, at Whiting. Dr. Frank H. Mervis, East Chicago, was elected president, and Dr. F. F. Boys, East Chicago, was elected secretary. Dr. Aaron Arkin, professor of medicine at the University of Illinois, spoke on "Some Interesting Gastro-Intestinal Lesions."

THE ELEVENTH COUNCILOR DISTRICT MEETING

The Eleventh Councilor District members held their seventieth semi-annual meeting at Huntington on October twentieth. The following speakers appeared on the scientific program: Dr. Eugene B. Mumford, of Indianapolis, whose subject was "Treatment of Fractures by the General Practitioner"; Dr. Carl Huber, of Indianapolis, who spoke on "Mannikin Demonstration of Application of Forceps"; and Dr. Robert E. Jewett, of Indianapolis, who gave a discussion of the Maternal Welfare Program of the State Board of Health.

WOMANS AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

OFFICERS FOR 1943-44

President—Mrs. James Baxter, Jr., New Albany
President-Elect—Mrs. F. M. Gastineau, Indianapolis
First Vice-President—Mrs. R. W. Kepler, LaPorte
Second Vice-President—Mrs. H. M. Rhorer, Kokomo
Third Vice-President—Mrs. Harry M. Schultz, Logansport
Fourth Vice-President—Mrs. I. H. Scott, Sullivan
Treasurer—Mrs. A. W. Ratcliffe, Evansville
Recording Secretary—Mrs. E. F. Stahl, Lafayette
Corresponding Secretary—Mrs. John Habermel, New Albany
Councilor—Mrs. Arnold H. Duemling, Fort Wayne
Parliamentarian—Mrs. Charles F. Voyles, Indianapolis
Historian—Mrs. U. G. Poland, Muncie
Archives—Mrs. W. E. Tinney, Indianapolis
Bulletin—Mrs. Ernest O. Nay, Terre Haute
War Participation—Mrs. M. B. VanCleave, Terre Haute
Finance—Mrs. C. E. Munk, Kendallville
Hygeia—Mrs. Geo. Dillinger, French Lick
Legislation—Mrs. F. B. Wishard, Pendleton
Organization (Northern)—Mrs. Herbert A. Ray, Fort Wayne
(Southern)—Mrs. F. M. Gastineau, Indianapolis
Pioneer Memorial—Mrs. O. G. Pfaff, Indianapolis
Press and Publicity—Mrs. A. B. Richter, Indianapolis
Program—Mrs. E. N. Mendenhall, Fort Wayne
Public Relations—Mrs. W. F. Hughes, Indianapolis

The annual convention of the Woman's Auxiliary to the Indiana State Medical Association was held in Indianapolis, September 28 and 29, with approximately three hundred members in attendance. Mrs. Arnold H. Duemling, of Fort Wayne, presided at the board meeting, which was held Tuesday afternoon at the Claypool Hotel. Mrs. Duemling emphasized participation in war service activities this year. She recommended promotion of health education "in order to make fine citizens and build up the morale this year" and "to extend an occupational therapy project because of postwar rehabilitation needs. There is increasing need for work in the pediatric project owing to the fact that so many mothers are in war work."

Members also discussed plans for extending friendship to families of medical men stationed in the vicinity. Mrs. Duemling appointed Dr. Jessie Calvin, Fort Wayne, as chairman of the collection of costume jewelry, to be sent to the troops in the jungle areas where it is used to barter for work done by natives. A large box at the registration desk was filled with costume jewelry.

Reports were given by the chairmen of the various committees. The only new business brought to the attention of the board was regarding the purchasing of a pin for the acting state president, which is to be passed on to her successor. It was also agreed to purchase pins for all past presidents. There are fifteen past presidents living.

Following the board meeting there was a tea at the L. S. Ayres & Company tea room in honor of Mrs. Eben Carey, of Wauwatosa, Wisconsin. She is the president of the Woman's Auxiliary to the American Medical Association. Mrs. G. W. Gustafson, president of the Marion County Auxiliary, welcomed the guests.

A dinner was held at the Indianapolis Athletic Club at 6:30 P.M. About one hundred twenty-five members were present. Mrs. Duemling welcomed the guests and members. Mrs. Gustafson served as master of ceremonies, and introduced the following guests: Mrs. Henry Schricker, wife of Governor Schricker, who brought greetings; Major Allen Sparks; Lieutenant Clausson; and Corporal Henry J. Butler and Private John Zimmerman, who played a dual piano number. Lieutenant Commander Henry Hurd, of the Great Lakes Naval Training Station, Chicago, told of the medical care given to the Navy personnel.

Mrs. Eben Carey brought greetings from the national board and told of the national organization's plan of aiding in the recruitment of nurse cadets. She explained the Bolton Act, which recently passed Congress. The purpose of this Act is to create a reserve pool of nurses who will be available for service in federal, state or private hospitals in the event of an emergency.

Any girl between the ages of eighteen and thirty, who has a high school diploma, is eligible for admittance to the Nurse Cadet Corps. The girls will receive maintenance, a uniform and a salary for a thirty-month training period. Upon completion of the course, she explained, they do not necessarily have to go into the armed forces; they may do private duty if they wish. The money is allocated by the Federal government to accredited training schools which apply for this corps. The individual

hospitals are responsible for the training of these students.

Lieutenant Joe Zerega gave a witty narration of his experiences in the African campaign. He is an Army pilot and was wounded and captured by the Germans. The Americans captured the place in which he had been kept prisoner, and he was sent back to the United States to recover from his injuries.

Wednesday morning the annual breakfast was served at the L. S. Ayers & Company tea room. Mrs. Duemling presided, and Mrs. M. A. Austin, Anderson, fourth vice-president, gave the invocation. Mrs. G. W. Gustafson extended a welcome to the guests. Dr. C. H. McCaskey, president of the Indiana State Medical Association, brought greetings from his group. Mrs. Ernest O. Nay, Terre Haute, made the response.

Following the breakfast the business session was held. Mrs. Rollo K. Packard, Chicago, national chairman of the war service committee, said, "Our first responsibility is to assist the government to end the war as quickly as possible." She spoke of problems arising from provisions of the proposed Wagner-Murray-Dingell Bill, which would set up socialized medicine, and urged the members to fight its passage.

"Since there are more women than men to vote in the next election, what greater opportunity could we have?" she asked, adding that "they have made a football out of medicine the last few years."

The new officers were elected, and Mrs. James Baxter, of New Albany, the new president, addressed the group before adjournment.

Mrs. James W. Baxter, president of the Woman's Auxiliary to the Indiana State Medical Association, called a meeting of the Board of Directors immediately following the close of the state convention. It was agreed that the next board meeting would be held on November fourth in Indianapolis.

ALLEN COUNTY

Mrs. Emor L. Cartwright, president of the Allen County Medical Auxiliary, has announced two projects for the coming year. One will be the sponsorship of occupational therapy for the patients of the Irene Byron Sanitarium, and the other is a movement to collect old costume jewelry for service men stationed in the Pacific Islands. A rummage sale was held in August to raise funds for their work.

About the first of September the Allen County Auxiliary issued one hundred fifty invitations to its annual membership tea, which was held at the home of Mrs. M. B. Catlett.

FLOYD COUNTY

MRS. JAMES BAXTER, JR., PRESIDENT

The Woman's Auxiliary to the Floyd County Medical Society has a membership of twenty-eight. Several of the members are with their husbands in service, but their names are retained on the active list.

The annual Public Relations meeting was again the highlight of the year's activities. The meeting was open to the public; the speaker was Dr. Gradie Rowntree, assistant health director, of Louisville, Kentucky, who spoke on venereal disease. Free health literature was distributed and support of the Cancer Control work was stressed.

Members of the auxiliary assisted with the County Immunization Program, which is conducted annually by the Floyd County Medical Society and the Third District Health Department.

As has been the custom for several years, the auxiliary gave six *Hygeia* subscriptions to schools and to the public library.

Last year many of our members thought that they were giving all the time they could possibly spare to Red Cross and Civilian Defense work, but with the need for such things growing greater each month, some of our busiest members have taken on much more responsibility. Our new auxiliary president, Mrs. Samuel M. Baxter, is now the chairman of the Red Cross Nurses' Aid work; four other members devote time to Nurses' Aid; in the two staff assistance classes offered by the Red Cross our auxiliary members have taken part, as well as in blood donor service and many other types of activities. We are not only anxious and willing to share in the responsibility of the war work, but we want a part in the post-war planning, which will mean so much to our husbands after the war.

Books

BOOKS REVIEWED

THE 1944 DAILY LOG FOR PHYSICIANS. Colwell Publishing Company, Champaign, Illinois. Price $6.00, postaid.

Dr. Colwell's *1944 DAILY LOG*, with its new Pay-as-You-Go tax forms, as well as provisions for the many miscellaneous records a physician must make during his daily practice should, in our opinion, be a most valuable asset to any medical man. A single page is devoted to every day of the year and a summary page at the end of every month, with provisions for carrying over the totals from the previous month, provide an easy and comprehensive bookkeeping system in a single volume. Memorandum sheets on which special appointments, surgical operations, obstetrics, narcotic dispenses, et cetera, are recorded afford an orderly manner of keeping in one book the daily doings of the busy physician. In estimating his 1944 income, he should find the Comparative Income Schedule a short cut to accuracy. It will combine facts concerning his professional and non-professional income for 1943 and will permit revision for the new year on the basis of these figures. Once the 1944 estimate is established, taxes are determined by using the table or schedule furnished by the Treasury Department. Quarterly payments and withholdings are noted on tax form two, where they become part of permanent records. The *1944 LOG* also contains a new form for Non-Professional Deductions. This will contain income tax data on deductible expenses (such as taxes on living quarters, et cetera) which are personal in origin, hence should not be included in professional expense. With the increasing burden of "keeping the records straight" for tax purposes, physicians should find this system an indispensable aid, and we recommend an investigation of *The 1944 DAILY LOG*.

EMS

ABSTRACT

A.M.A. JOURNAL ANALYZES WAGNER-MURRAY-DINGELL BILL

"The Wagner-Murray-Dingell Bill proposes a complete revolution of medical practice in the United States," *The Journal of the American Medical Association* declares in an editorial in its October 16 issue. "Nearly every institution concerned in the prevention, diagnosis and treatment of disease would have to modify its method of rendering service. The type of medical education and research and the administration of hospitals would be grossly altered. The immediate results of revolution are almost always destructive. For several years the institutions that protect and maintain the health of the American citizens would certainly be so disrupted as to make the efficient performance of their functions for the protection of the health of the American people almost impossible.

"Is our situation today so desperate as to call for so radical a remedy? Medicine never hesitates to use radical measures when required in desperate situations. Do present conditions indicate defeat in the battle against death and disease? The reverse is true, according to reliable vital statistics. Never was the general death rate lower or falling more rapidly in relation to all the conditions that affect that rate than now. The infant death rate, accepted throughout the world as the most accurate measure of public health, is lower in the United States today than in almost any other country in the world. Although this decline has continued for many years and therefore might be expected to be approaching a minimum, it has shown an accelerated fall in recent years. Life expectation is greater here than in almost any other country and definitely longer than in any having systems of compulsory sickness insurance. The recent phenomenally rapid increase in the birth rate in recent years, which has always hitherto been accompanied by an increase in maternal infant death rates, has been accompanied by a decline in these rates in the United States.

"The public health movement is certainly not declining in scope or efficiency. Public health departments, which almost invariably owe their origin and protection from the corrupting influence of politics to the activity of physicians either singly or in organizations, have now attained a momentum which is carrying their work into every community. The constant watchfulness of the medical profession has secured the administration of increasing numbers of these departments by competent trained personnel and strengthened their power to protect the public against disease.

"The claim that American hospitals are in general best equipped of any in the world can not be challenged. They are the models admired by other nations. Medical education, which at the beginning of the century was considered in many of its aspects disgraceful, has, thanks almost exclusively to the active supervision of the medical profession in the United States, attained world leadership.

"These are not the conditions that call for revolutionary activity. Every phase of medical development in this country testifies to the soundness of the progress that has been made and indicates the desirability of continuing evolution.

"The United States gained its leadership in medical education and care by methods that have been tested in the crucibles of time and economic hardship. Now it is proposed to abolish these institutions and methods and to substitute others whose trial in many countries has failed to produce health conditions equal to those existing here. The Wagner-Murray-Dingell Bill would abolish the volunteer control and inspiration that have brought medical education, hospital management, drug purity, research and medical service to their present eminence. As a substitute the people are offered a system controlled by salaried political bureaucrats. Scientists have too many aphorisms warning against such 'ersatz' to participate in destroying what they have found good."

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In addition to our Professional Liability Policy for private practice we issue a special

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(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit

ANNOUNCES CONTINUOUS COURSES

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INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, August, 1943

Diseases	Aug. 1943	July 1943	June 1943	Aug. 1942	Aug. 1941
Tuberculosis, Primary	11	7	14	2	10
Tuberculosis, Active	106	218	235	65	144
Tuberculosis, Arrested	22	35	15	10	10
Chickenpox	15	21	150	8	15
Measles	60	344	1133	26	56
Scarlet Fever	34	59	131	49	38
Smallpox	1	3	5	0	3
Typhoid Fever	10	24	9	18	16
Whooping Cough	193	310	248	233	84
Diphtheria	28	8	13	23	19
Influenza	14	19	6	11	18
Pneumonia	7	12	25	37	44
Mumps	23	44	110	16	1
Poliomyelitis	12	3	1	21	35
Cerebrospinal Meningitis	19	7	23	3	4
Trachoma	1	0	0	1	0
Undulant Fever	8	7	6	6	2
Malaria	9	12	1	1	0
Rubella	14	24	65	1	0
Nonepidemic Meningitis	1	0	0	0	0
Epidemic Keratoconjunctivitis	12	0	0	0	0
Impetigo	3	0	0	0	0

SEPTEMBER, 1943

DISEASES	Sept. 1943	Aug. 1943	July 1943	Sept. 1942	Sept. 1941
Tuberculosis, primary	3	11	7	2	5
Tuberculosis, active	88	106	218	147	108
Tuberculosis, arrested	19	22	35	9	8
Chickenpox	32	15	21	20	16
Measles	39	60	344	21	10
Scarlet Fever	79	34	59	67	50
Typhoid Fever	10	10	24	21	15
Whooping Cough	171	193	310	150	67
Diphtheria	26	28	8	19	17
Influenza	17	14	19	42	46
Pneumonia	23	7	12	47	43
Mumps	20	23	44	14	8
Poliomyelitis	37	12	3	25	36
Cerebrospinal Meningitis	5	19	7	2	1
Undulant Fever	6	8	7	3	4
Rubella	4	14	24	3	0
Dysentery	2	0	14	2	1
Malaria	1	9	12	0	2
Rocky Mountain Spotted Fever	3	0	2	0	1
Septic Sore Throat	3	0	0	0	0

WORSE THAN EVER

Mr. Ginsburg had been complaining of insomnia. "Even counting sheep is no good," he sighed to his partner in the clothing business.

"It is only good if you count up to 10,000," replied his partner. "Try that tonight."

But the next morning Mr. Ginsburg was still complaining.

"I did not sleep a wink," he said. "I counted the 10,000 sheep, I sheared 'em, combed the wool, had it spun into cloth, made into suits, took 'em to the City, and lost twenty dollars on the deal. I didn't sleep a wink."

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VOLUME 36 DECEMBER, 1943 NUMBER 12

WAR PROBLEMS FACED BY THE MEDICAL PROFESSION

HERMAN L. KRETSCHMER, M.D.

PRESIDENT-ELECT OF THE AMERICAN MEDICAL ASSOCIATION

Never before in the history of man has there been a war of such magnitude as the present World War II. Never before have there been such large fighting forces, and never before has a war been spread out over so many far-flung battlefields. It is truly deserving of the designation global or total war, as evidenced by the fact that at the present time our armed forces are located in fifty-one different places on the face of the earth. As a result of the total character of the war and the large number of men engaged in combat and the increased speed of the war due to mechanization, the effects of the war—both immediate and remote—can not be compared to the effects of World War I. The effects of the war on the practice of medicine in the postwar period will, we all realize, be tremendous and far-reaching. I shall, however, discuss only the immediate impact of the war on medicine. At the same time I should like to pay tribute to the time, study, and thought given to the various postwar problems by the Committee on Postwar Medical Service of the American Medical Association.

JAMES E. PAULLIN, M.D.

President of the American Medical Association

ATLANTA, GEORGIA

Great praise is due the 45,000 physicians who have voluntarily entered the military service to serve our country in the present crisis. There are many differences between the practice of military medicine and that employed in civilian life. Very few of our members had previously had any type of military training, and for this reason it is a great tribute to the medical profession to see with what great enthusiasm and interest they have undertaken these new assignments and with what great pride we read of the remarkable results which they have achieved with our troops. The busier they are, the happier they are.

In dealing with such a large number of physicians under the stress of rapid mobilization, it has not been possible always to assign each officer to that type of duty for which he possesses certain qualifications. I am convinced that the Surgeons General of the Army, Navy and Public Health Service will make every attempt to remedy these assignments as rapidly as existing military conditions will permit. Letters, such as that written by Lieutenant General Clark, commanding the Fifth Army, (published in THE JOURNAL of the American Medical Association November 6, 1943) expressing appreciation and gratitude for the type of service rendered by the Medical Corps to his troops under most difficult conditions, are in keeping with the type of care given at all military installations.

Those of us who remain on the home front view with pride your accomplishments and we applaud the honor which you are bringing to your profession from such unselfish service. All glory to you!

THE EFFECT OF THE WAR ON MEDICAL PERSONNEL

I think that you will all agree with me that the armed forces must be adequately staffed to meet whatever medical or surgical emergencies may arise. With the rapid increase in the size of the Army, Navy, and Air Forces, the demand for more and more medical personnel is obvious.

It has been estimated that at the end of 1943 there will be a total of 53,000 physicians allotted to the care of sickness and injuries of the armed forces estimated at 10,800,000 men when fully enlisted. This means that there will remain a total of 108,000 physicians, interns, and residents to care for the nation's 120,000,000 civilians. This is a ratio of one physician to about 1,557 persons. This ratio appears to be adequate from the stand-

Presented at the 94th Annual Meeting of the Indiana State Medical Association at Indianapolis, September 29, 1943.

point of present health standards. The health of the nation has never been so good as it is now, even in spite of the fact that there is an apparent shortage of doctors.

It has been necessary, because of the shifting of population due to the mushroom growth of industrial towns and communities, to relocate many of our doctors and to place them in areas where there has been a temporary shortage. Through the work of the Procurement and Assignment Service, it has been possible to relocate more than 1,400 physicians. The problem of licensure is gradually being met by the cooperation of many states in holding special examinations when the occasion arises and by the issuance of temporary licenses to meet the emergency.

The ratio in the United States of one physician to 1,557 people compares very well indeed to the physician-civilian ratio of other countries. In England, for example, the ratio is one physician to 2,700 civilians, and in Germany, although exact figures are difficult to obtain, it has been estimated that there is one physician to 15,000 of the population. It would therefore seem that with careful conservation of effort the present supply of physicians should suffice to take care of the civilian population.

As more and more doctors join the armed forces, it will become more and more necessary to instruct the public in the ways in which they should conserve the time and energy of the civilian physicians who remain at home. They should be instructed not to be needlessly or uselessly wasteful of the services of their physicians, and they should be cautioned not to be reckless of their own health. They should be instructed not to infringe needlessly on the time of the doctor; not to call him for trivial and minor ailments; not to expect numerous house calls when it would be possible to be treated at the doctor's office. They should be informed of the importance of calling a physician in the morning when a house call is necessary, and of the heedlessness of calling late at night. It would be well to give thought and consideration to such a program of public information, as well as to one designed toward directing the public in the proper habits of health—of proper food, drink, outdoor exercise, and the need for proper rest at night.

Not only does the public have a responsibility toward the physician, but the physician, likewise, has the responsibility of guarding jealously his time and energy, of arranging his work and scheduling his calls, and he, too, should have plenty of rest, relaxation, and diversion. Under wartime conditions, the physician's job is a difficult one, and only with careful consideration of his own health and strength can he meet most effectively the demands that will be made upon him.

The necessity for this becomes increasingly apparent. As was pointed out in a recent issue of *The Journal of the American Medical Association*, the armed forces need 6,000 more physicians and they need them now. No one of us will deny the fact that the armed forces will and should have the first call to fill the quota. I am sure you will agree with me that you will want your boy, as I will want my boy—whether he be stationed in Alaska, Sicily, North Africa, or in the South Pacific—when he is in need of medical or surgical care, to have the best medical services obtainable and to have them available in sufficient number.

NORMAN T. KIRK,

Major General, United States Army,

The Surgeon General.

Despite the tremendous and rapid expansion of the Army since the onset of the war, the health of the military personnel has been the best and the case fatality rate the lowest in the history of the nation. This has been made possible by the application and utilization of all advances in medical science in the prevention and treatment of disease and injury, as well as by the establishment of intelligent organization and the provision of adequate facilities. I realize, however, that the fundamental factor in this accomplishment has been the medical officer, whose professional skill and devotion to duty have inspired all. In accordance with the traditions of his profession, he has shouldered his responsibility with cheerful enthusiasm and great personal sacrifices, and has attacked his varied problems with ingenuity, determination and efficient adaptability.

THE EFFECT OF THE WAR ON HOSPITALS

It is only natural under the present circumstances of a global war that many problems of hospital administration have arisen. This is due not only to the shortage of nurses but to the difficulty being experienced in obtaining residents, interns, and service and maintenance personnel so that the problems of hospital care have meant a rearrangement of peacetime hospital administration.

The problem of the shortage of nursing personnel, like that of medical personnel, can be met only by the conservation of the nurse's time and energy. The use of volunteer workers and lay personnel has contributed greatly toward this end. The Red Cross has trained over 85,000 nurses' aides and these, together with the Gray Ladies, ward secretaries and canteen workers, have contributed in many ways toward conserving the nurses' time. Further conservation of the nurses' time can be accomplished by group nursing. Patients can be grouped either in one room or ward, or one nurse can take care of several private room patients. For the duration, a patient who is not seriously ill must not expect to have a full complement of three eight-hour nurses, and we must consider the luxury

of having one's own nurse at one's beck and call as definitely out for the duration.

Not only among the nursing personnel has there been a shortage, but among other hospital personnel, such as elevator operators, dietitians, technicians in the roentgen ray departments, the chemical and bacteriological laboratories, and in the department of physiotherapy.

The problems of hospital administration have been increased due to the fact that many doctors, to conserve their time, are having more and more of their private patients come to the hospital for examination and consultation and treatment. As a result of the various prepayment plans, many patients seek hospital care. With employment running at full tilt and with the earning capacity at a relatively high peak, patients are in a position to avail themselves of hospital care. This is in marked contrast to the situation ten years ago when unemployment was so widespread and the hospital had a surplus of empty beds. With full employment many patients choose to avail themselves of hospital care, and this shows the relationship between full employment and the ability of the patient to provide for his own medical care.

During every war there is an increase in the number of births, and this, with the tendency for women to have their babies in hospitals, has increased the number of obstetrical beds in the hospitals. In many hospitals the number of postpartum days has been reduced as a part of the war program, and I have reliable information that this has been done without danger to the patient. This results in an increased bed capacity of from twenty to twenty-five per cent.

Hospital bed capacity can further be increased by curtailing the prolonged treatment of chronic cases in the hospitals, many of whom remain in the hospital longer than is absolutely necessary. The doctor likewise can conserve his time by reducing the number of visits to his office of chronic and neurasthenic patients by the use of remedies which can be taken by mouth instead of administered by intramuscular and intravenous injection. It may also be possible for some hospitals to establish convalescent homes for patients who no longer need hospital care by the acquisition of suitable buildings in the neighborhood.

A further problem faced by the hospitals is that of obtaining equipment essential to their maintenance and administration.

MEDICAL OFFICERS DISPLAY UNQUENCHABLE SPIRIT OF AMERICANISM

FRED W. RANKIN
Brigadier General, U. S. Army,
Chief Consultant in Surgery

Although the destructive power of present ordnance and the problems encountered in the care of the wounded in this war are greater than ever before, the incidence of fatalities among the wounded is the lowest and the restoration to an effective state of health the highest in the history of warfare. This gratifying record may be ascribed to a number of factors, including particularly the plentiful use of blood plasma, the employment of sulfonamides and penicillin, the rapidity of evacuation, and the efficient mobility and organization of medical services which have advanced hospital facilities in the battle zone and thereby assured earlier treatment of the wounded. These developments have received great emphasis and much publicity and undoubtedly have contributed tremendously toward this improvement in the care of the wounded. Of even greater significance, I believe, but much less heralded and perhaps insufficiently appreciated, is the functional performance of the individual medical officers who comprise the vanguard of Army medical service. The indomitable resourcefulness, the moral courage, the physical stamina, the surgical proficiency, and the efficient adaptability which these medical officers have displayed in the skillful utilization of these new developments and in the cheerful execution of their tasks under the most hazardous circumstances and adverse conditions are the intangible factors that have been most responsible for this unparalleled achievement in war surgery. These manifold attributes which our young physicians have carried to the far-flung battlefields of this war clearly reflect the best traditions of the medical profession, as well as the nobly distinctive and absolutely unquenchable spirit of Americanism.

THE EFFECT OF THE WAR ON DRUGS AND SUPPLIES

The picture presented by drugs and supplies is much more optimistic, especially when viewed in contrast to World War I. There are, no doubt, many present tonight who can vividly recall the shortage of drugs during the last war. At that time we were very dependent upon Germany for our chemicals—arsphenamine, neoarsphenamine and the barbitals. When the submarine *Deutschland* landed on our shores with a cargo of salvarsan, this made front-page news and salvarsan sold for as much as twenty-five dollars a tube. Since that time the chemical industry, as well as the pharmaceutical industry, has made great strides in this country and we are no longer dependent upon the importation of many of our medicinals.

An acute scarcity of quinine developed immediately after the fall of the Dutch East Indies but, thanks to the alertness of the research departments of the pharmaceutical houses, we have had many other anti-malarial drugs, such as atabrin. The

widespread use of the sulfanilamides, both by the armed forces and in civilian practice, has not been hampered in any way, as the basic materials from which these drugs are made are now being manufactured in this country on a very large scale. Many of our botanicals come from the Far East, but now that the blockade of the Mediterranean has been lifted, the shortage will solve itself. Great progress is being made in the production of penicillin and, while not on a large scale at present, a fair supply is available for the armed forces. The shortage of cod liver oil following the war in Norway has been offset by the use of halibut liver oil and the production of many vitamins, synthetically, so that this country need have no fear of a shortage of essential vitamins.

One of the factors in lowering mortality in this war is the use of blood plasma. Our thanks are due to the leaders of the medical profession and to the Red Cross for establishing blood banks, and to the great numbers of our citizens who have so generously donated their blood. Because of this splendid foresight and cooperation there has been no shortage of blood plasma in the treatment of war casualties.

TEAMWORK ON THE HEALTH FRONT—TODAY AND IN THE FUTURE

THOMAS PARRAN, M.D.
Surgeon General, United States Public Health Service
WASHINGTON, D.C.

More than one-third of our medical manpower has gone to the military services. No other armed force can equal ours in the proportion or in the competence of its medical and health components. The skill, intelligence, courage and devotion to duty of the men who make up this life-saving force have given us the healthiest Army and Navy in the world.

Those in the United States Public Health Service, in our State and local health departments, and in private practice have held the line on the civilian health front so that the civilian army could produce vast quantities of weapons, food and other essential war supplies.

Immersed though we are in the tasks of war, we can not afford to postpone the development of plans for postwar health and medical needs. In a very real sense, the future of the medical profession is in the hands of the doctors now in military service. Having learned to work together for the purposes of war, we can look forward to turning our mutual skills to the purposes of peace.

THE EFFECT OF THE WAR ON MEDICAL EDUCATION

The education of a doctor is a very long and tedious process. Medical education consists not only of buildings, laboratories and equipment, but of teachers and clinicians, of whom there is a limited supply. Even under the stress of war, nothing should be done which will in any way detract from the present-day high standards of medical education.

Even before Pearl Harbor the Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges recognized that in the event of a war there would be an increased demand for a large number of well-qualified physicians. These agencies recommended that the medical schools which could do so without jeopardizing the quality of their educational program should adopt an accelerated program compressing the four-year course into three years by eliminating the long summer vacations. At present all medical schools in the United States are on the accelerated program, admitting a new class approximately every nine months. The first effects of these recommendations have already appeared, since in March of this year over 3,000 seniors completed their work three months earlier than would have been possible under the peacetime traditional four-year medical curriculum. These effects will be cumulative and it is estimated that on the average there will be approximately 7,000 annual graduates, which is a larger number than has ever before been graduated from the medical schools of this country. This does not mean that 7,000 students will graduate every year but that in the course of the next three years approximately 21,000 will have received their degrees and will become available for internships and thereafter for the armed forces and the civilian population.

At the present moment the term of internship is reduced to nine months, one-third of them getting a second nine months, and one-half of that third, or one-sixth of the total, getting another nine months.

As the duration of the war continues and as the need for more and more doctors increases, the problem of teachers in the medical schools becomes very serious. The first inroads on the teaching personnel occurred when the various base hospitals were called to active service, which resulted in the loss of a large number of teachers. A certain number of teachers joined the armed forces apart from the hospital units, making further inroads on the teaching staffs, so that at the present time in some institutions the available men for teaching have been reduced almost to an irreducible minimum.

If the supply of medical graduates is to be increased to meet the demands of a larger fighting force, it becomes imperative that we keep the present teaching staffs intact. As an example of the importance of not making further inroads on the teaching staffs, may I say that I know of a teach-

ing institution in which there remains one roentgenologist to carry on the work of the hospital and the outpatient department and, in addition, to do the necessary teaching; yet his services were asked and pressure brought to bear upon him to join the armed forces. If he had done so, the situation would have been tragic.

As I have stated previously, I think the armed forces should have their full complement of able and competent personnel. I do think, however, that in obtaining this personnel the institutions that are going to train the doctors should not be wrecked so that they may no longer function to teach future medical personnel who will serve the armed forces, the civilian population, and industry.

In conclusion, it is perfectly obvious to me that at the moment there is no overall acute shortage of doctors in the United States, and with careful planning and relocation of a certain number of doctors, industry and the civilian population can be assured of adequate medical care.

No one can gainsay the fact that the physicians of the United States have not risen to their obligation in answering the country's call to the armed forces. No one will disagree with the statement that the health of this country has never been so good as it is today.

The challenge to do their part in the war effort, in the armed forces, in industry, and in looking after civilians, has been most admirably met by the medical profession, more so perhaps than in any other group. The foresight of the leaders of the medical profession in planning available medical personnel to the armed forces, industry, and the civilian population, has been a great achievement and is worthy of the highest praise.

IN AN ARMY MEDICAL LABORATORY

MAJOR JOHN L. ARBOGAST, M.C.
A.P.O. No. 181, Los Angeles, California

Among the many provisions for medical service in the Army, the medical laboratory, Army or communications zone, occupies a unique place. Provided for the investigation of epidemic or communicable diseases, it may be used for special needs which are apt to arise at any time, such as investigations, epidemiological problems, and surveys. It is sufficiently mobile and versatile to perform its function well forward in the war zone. It can perform complex tests beyond the ability of personnel and equipment in our front line units.

Life with such a unit certainly provides sufficient variety, both in work and localé. One accustomed to the usual hospital laboratory equipment must make many adjustments. Naturally electricity may be limited, gas is not often available, and even water may be precious. Much of our equipment, such as autoclaves, sterilizers, incubators, stills, et cetera, must of necessity be gasoline- or kerosene-heated, and personnel must be thoroughly familiar with the equipment used. Work inside tents or available buildings, often under unusual conditions of temperature, humidity and dust, adds to those problems which engage the Army field laboratory officer. Since hospitals have their own laboratories, this laboratory will seldom supplement such laboratories or perform routine clinical examinations. However, special examinations are referred by Army hospitals, and special laboratory reagents are prepared for distribution to clinical laboratory sections of hospitals. The problems usual in a civilian hospital laboratory are not often referred to these units, but rather those explosive food poisonings; water hazards; tropical diseases, such as malaria; and finally the diseases and injuries peculiar to combat. To properly assemble and train a group of officers and enlisted technicians for such a unit is a difficult problem, especially when one considers the variety of work and the shortness of training time. Those units which have had experience either in maneuvers in this country or in combat in our theatres have engaged in a great variety of laboratory work. The gadgeteer is in his glory. Can you imagine an automobile intake manifold as a source of vacuum for blood alcohols, a couple of barrels and a bucket in the hands of a man to cool the condenser of a water still, or using an alcohol blast lamp for emergency soldering of a leaky incubator, or a water-soaked rag wrapped about a can to cool specimens during transportation on the desert, or taking a blood culture within white drapes within a tent in order to keep down contamination from sand and dust? The laboratory work may range from ordinary water analysis to special study for war gas contamination, from routine Kahn tests to darkfield examinations, from blood culture to checkup of a meningitis scare or an epidemic of diarrhea, or from a simple blood count to a survey for malaria. That those laboratories which have seen maneuver and combat service have proved themselves useful is a tribute to the accomplishment of a seemingly impossible task.

PHYSICIANS IN THE SERVICES AND IN CIVILIAN LIFE: PRESENT STATUS

FRANK H. LAHEY, M.D.
BOSTON

The responsibility which has been placed upon the Central Board of the Procurement and Assignment Service is by no means a light one, concerned as it is with supplying an adequate number of physicians, dentists, veterinarians, sanitary engineers and nurses for the armed forces. At the same time the Board must preserve an adequate structure of medical, dental, veterinary, sanitary and nursing care for civilians and industry, and maintain adequate personnel for hospitals and schools for training physicians, dentists, veterinarians, sanitary engineers and nurses.

This places the Board in a position of extremely heavy responsibility to both the civilian population and the armed forces. Everyone should be interested in what has been accomplished up to this time, particularly with regard to medical manpower resources.

There are in the Navy now 10,001 physicians for a troop strength of approximately 2,600,000. There are in the Army 40,000 physicians for a troop strength of approximately 7,500,000. These figures have been published repeatedly so there is no secret about them. This leaves the Navy at a little below four doctors per 1,000, and the Army a little above five doctors per 1,000.

There remain in civilian practice about 7,000 physicians who have been classified as available for the armed forces. Many of these men probably have already had physical examinations, and at least 35 per cent probably would be found physically unacceptable for duty. Were it possible to commission as a medical officer every physician acceptable, there would be available for the armed forces between 4,000 and 4,500 men.

The Central Board of the Procurement and Assignment Service feels that these remaining physicians who are classified as available, who can pass physical examinations, should seek commissions in the Navy or Army. If the Navy could obtain a little higher percentage than the Army out of this remaining group, it would, in my opinion, be desirable from the standpoint of the equalization of distribution of physicians between the two forces.

One hears many comments concerning further needs for the armed forces. I wish to say for the Procurement and Assignment Service that every physician who is classified as available should undergo a physical examination and, if acceptable, should seek a commission.

All available physicians in civilian practice fall into two classes: (1) those who have not questioned their classification, and (2) those who have questioned their classification, appealed it, and have not been sustained. The former, who have not even questioned their classification, are most certainly in an unenviable position in their lack of patriotic interest in the welfare of their country. The latter, who have questioned their classification, have at least expressed doubt and have appealed their classification, but if they have not been sustained and have still not sought a commission, they must admit that they have appointed themselves as judge, jury and advocate of their own cause.

If we can obtain for the armed forces the physicians classified as available who can pass the physical examination, I personally will not worry much about providing medical care for the armed forces, in view of the fact that medical schools will now very shortly begin supplying men to the armed forces yearly. Each

MANPOWER COMMISSION COMMENDS PHYSICIANS

PAUL V. McNUTT,
Chairman, War Manpower Commission
Washington, D. C.

The equitable distribution of physicians in time of urgent human need always has been a problem. Since we entered the war it has become a more serious problem. Although a liberal share of the nation's physicians must be given to the armed forces, the millions of Americans on the home front also must be cared for, otherwise those who produce the sinews of war cannot do an effective, uninterrupted job.

Under the guidance of the Procurement and Assignment Service of the War Manpower Commission, the medical profession, on the whole, has done a remarkable job in providing in less than two years more than fifty thousand physicians to the armed forces and at the same time redistributing two thousand physicians to areas in need of physicians.

The Army and Navy will continue to need physicians from time to time. We naturally must endeavor to provide them with those having the special qualifications they require. Our big job from now on, however, will be the assurance of as good medical care as possible for our civilian population. Constant surveys will be required to make certain that every area's medical needs are met. This demands the complete cooperation of every physician in the country and the willingness of many to serve in communities where they are most urgently needed.

Indiana physicians who have volunteered for the armed forces are doing a noble work. Equally serious sacrifices are being made by those remaining at home, either at the request of the War Manpower Commission or because of disqualification for military service. They are doing an excellent and a most commendable job in maintaining the health of those manning the arsenals of democracy.

year from now on, an average of 7,300 physicians will be graduated from medical schools. Out of this number, certainly 6,000 will become members of the armed forces, and will serve yearly to augment the number of physicians on duty and replace those discharged. If we can once obtain all the physicians who have been classified as available, this yearly production of physicians, I believe, will largely care for both services.

The problem with regard to the civilian population is not as simple. One must remember that the yearly number of physicians becoming unavailable for civilian practice as the result of death, disability or enforced retirement has been 3,800. Approximately 1,800 physicians a year are discharged by the Army and the Navy. Of this number I doubt that more than 1,000 will be really useful for civilian practice. I further doubt that up to 1945 there will be available, from the 7,300 graduated from medical schools yearly, many more than 600 or 700 for civilian care. It is assumed that after 1945, 20 per cent of the places in medical schools will be reserved for women and physically disqualified men to study medicine at their own expense. I have talked with many deans concerning the prospect of this 20 per cent of places in medical schools being filled, and they and I are doubtful that under this program over 1,000 physicians a year will be produced for civilian care.

If we have 1,000 available out of the 1,800 discharged from the Army and Navy, plus this 1,000 from medical schools, we will have but 2,000 a year to replace the 3,800 becoming unavailable. This indicates an increasing deficit yearly of 1,800 to 2,000 physicians for civilian care. One does well to remember also that of all the physicians taken from civilian life for the armed forces but 5.2 per cent are over forty-five years of age. We have, therefore, on the one hand, 50,000 physicians largely under forty-five years of age for 10,000,000 persons in the armed forces, and about 88,000 physicians largely from forty-five to seventy-five years of age for the approximately 120,000,000 persons in civil life.

The above statements are a presentation of the true facts with a sincere desire not to work any injustices on either the armed forces or the civilian population. I have repeatedly said that up to now the problem of providing medical care for the Army, Navy, Coast Guard and Public Health, and at the same time the civilian population, has been relatively simple because of a surplus of physicians. From now on the problem will become increasingly difficult. It will require greater care and watchfulness, mutual understanding, improvisation and modification in the utilization of physicians, both in and out of the services, if we are not to bring about situations which we may all well regret.

ABSTRACT

URGES SHORT INTENSIVE COURSE IN PSYCHIATRY FOR ALL DOCTORS

Short intensive psychiatric training courses for physicians are very much in order, not only to meet the need of the armed forces for more psychiatrists but also for the tremendous postwar job in this field, Lieut. Col. William C. Menninger, Medical Corps, Army of the United States, Neuropsychiatric Consultant, Fourth Service Command, declares in *The Journal of the American Medical Association* for November 20.

"The second major concern confronting every physician, both in and out of the Army," Colonel Menninger says, "is the number of psychiatric cases which the war experience has disclosed in our general population. The medical and social implications of this group are beyond our present ability to estimate.

"The third major problem confronting the Army psychiatrist is the rapid and most effective disposition of these maladjusted individuals in the Army. The first purpose of the Army is to win the war, and consequently these soldiers unfit for service must be given over to the care of civilian agencies and civilian physicians with the hope that they will accept the responsibility and provide treatment for these men in accordance with our most modern psychiatric concepts."

The psychiatric problems of the Army, Colonel Menninger explains, "should be of vital interest and concern to every citizen interested in the war effort and particularly to medical men. They should be of interest, first, because of the great number of men whose Army experience has brought to light their need for medical and particularly psychiatric help. This fact may be vividly portrayed by these figures: an average of 8 to 10 per cent of men examined for military service are rejected for psychiatric reasons, and nearly 30 per cent of the discharges from the Army are for psychiatric reasons. In contrast, only 2 per cent of the medical profession are psychiatrists. The social implication of these figures is enormous, but their importance to the medical profession is even greater.

"Every internist is aware of the fact that even in normal circumstances in our prewar practice between 40 and 60 per cent of the patients seeking medical help present only functional disturbances. . . ."

The Colonel points out that, despite the lack of trained psychiatrists and the lack of facilities, the caliber of neuropsychiatry practiced in the Army is surprisingly good.

THE MEDICAL PROFESSION GOES TO WAR*

REAR ADMIRAL JOHN DOWNES
United States Navy
Commandant, Ninth Naval District
GREAT LAKES, ILLINOIS

It is a genuine pleasure for me to attend this meeting. It would be a pleasure for any naval officer, because Indiana is a Navy state. Perhaps you Hoosiers know that the state of Indiana has given generously to the Navy, not only of her material resources but also of her sons. Hoosiers have contributed to the Navy from the newest recruits to the highest ranking officers. There are Naval Training Schools at the Universities of Indiana, Notre Dame, and Purdue, and at the Naval Reserve Armories both here in Indianapolis and at Michigan City. There is a Naval Flight Preparatory School at DePauw University and a Naval Air Station at Bunker Hill. In addition, there are War Training Service Schools at Ball State Teachers' College, at Evansville College, and at Indiana State Teachers' College. There are, in all, more than 5,000 students in these Naval Training Schools. This does not include the five schools which were selected for the V-12 Program, and they account for more than 4,000 additional students, of which 375 are pre-medical and pre-dental. The aggregate number reaches more than 9,000. There are Hoosiers among top-ranking naval officers: Admiral Spruance, Admiral Cook, Admiral Marquart, Admiral Ingram with the fleet in the South Atlantic, and Admiral Ingersoll in the North Atlantic. Indiana has likewise been a leader in providing the Navy with enlisted personnel.

The tremendous Naval Reserve power of the state of Indiana can be accounted for by her early interest in the Navy, ably fostered by Hoosiers whom many of you may know—Captains O. F. Heslar and Felix M. McWhirter.

Perhaps it is clear without saying that in time of peace the armed forces of our country represent only a nucleus of professional and scientific military men. In time of war this nucleus must be greatly expanded until the armed might of the nation is prepared to strike a blow. As was demonstrated after Pearl Harbor, the nucleus was expanded rapidly with men in the Naval Reserve who had continued their interest in the Navy, and men of the medical and dental professions who stood ready to join the armed forces. The medical profession itself does double duty in time of war. It provides the medical experts needed by the Army and Navy, and it continues to provide medical and dental assistance for the vast civilian population at home. The Medical Association of the State of Indiana and the Procurement and Assignment officers have done a most remarkable job in providing well-qualified doctors and dentists, both for the military and for the home front. The Navy is not unaware of the sacrifices which have been made. The doctors who joined the service have frequently given up lucrative practices to serve their country. Doctors who have continued on at home have found that their long hours of work have become even longer. Under increased burdens they have continued to protect the lives and health of the civilian population. You doctors have stuck to your jobs and have done them well, no matter what came up to interfere. You are much like a sailor under my command during maneuvers before the war. He was seen falling overboard. The alarm was sounded, the life buoy was dropped over the side,

ROSS T McINTIRE
Rear Admiral, Medical Corps,
Surgeon General, United States Navy
WASHINGTON, D.C.

This opportunity to say a few words in THE JOURNAL is particularly welcome because it affords me the chance to acknowledge and express appreciation of the war role which is being carried by Hoosier doctors. In peacetime the Navy, small and compact, was a "Regular's" Navy. But today, as we observe the second anniversary of Pearl Harbor carrying the fight to the enemy, the Fleet is composed in the main of Reserves—officers and men who have abandoned civilian pursuits for military service. This is true of the Medical Corps, as well as the Line, and it can be said without danger of contradiction that Indiana ranks in the front line of states whose physicians and surgeons have answered the call. They came from the countryside and large cities, from four-cylinder practices and impressive consultation clinics. They are to be found today in battleships, with the Fleet Marine Force and in base hospitals. They are making good medical officers—and good sailors.

* Presented before the General Meeting at the ninety-fourth annual session of the Indiana State Medical Association at Indianapolis, September 29, 1943.

and the lifeboat was lowered. After a search had been made for some time, it was abandoned and the boat returned to the ship. An officer remarked how odd it was that the man couldn't be found. A seaman overheard him and said that perhaps he had caused the confusion, for he had fallen over the bow but fortunately had caught on the anchor chain. As the alarm sounded he climbed back on deck unnoticed. Asked why he didn't report this, he answered: "It was my lifeboat that was ordered out, and I had to man an oar."

No small share of the victories which have been achieved by the Navy and the Marine Corps since Pearl Harbor has been due to the exceptional work of the medical profession. Perhaps you know that in battle aboard ship the doctors at their battle stations in sick bay are instructed to tend the men with slight wounds first and those with more grievous wounds later. The reason is that in battle as many men as possible must be kept at the guns or the ship may be lost. In reality then, on more than one occasion the tide of victory has been turned in our favor because of the work done by the doctors in sick bay. How well they have done can be measured with more than a fair degree of accuracy. So far in this war the casualties have been far below that of World War I. In that war 7 to 8 per cent of the wounded lost their lives, whereas in this war 1½ per cent have been lost. This victory—and that is just what it is—has been due to many factors, and most of these factors have been controlled by the doctors themselves. As surely as I involve myself in medical terms and techniques, I shall be as much at sea as a landlubber. However, I do wish to stress the point that the medical profession has done its work extremely well, as shown by facts. The doctors and dentists on the battle front have received the support of their scientific colleagues back home. Medical science has continued to make its advance. Sulfa drugs, penicillin, amytal, and hundreds of other drugs have aided in restoring the sick and wounded. The city in which we now meet has been a center for the development of at least one of these important drugs.

The Bureau of Medicine and Surgery has continued its leadership in maintaining its advanced laboratory and research centers. Its hospital ships and medical stations have made the unusually fine work of the doctors possible. An example of this is the United States Naval Mobile Hospital, which left —— on June 9, 1942, arrived in ——, July 19th, and began construction on their hospital the following day. In less than a month a hospital of forty buildings for two hundred fifty staff members and three hundred eighty patients was completed. The day after it was finished three hundred sixty-six casualties from the first naval battle at Guadalcanal were brought in. From that day of August 20, 1942, to August 20, 1943, this hospital handled over fifteen thousand patients, with only eighteen deaths. This is one story of many which might be told of the effective work of medical men under the supervision of the Bureau of Medicine and Surgery.

You gentlemen, specialists in the field of medicine and dentistry, have gathered to discuss the scientific procedures and advances in your profession. These questions are not academic; upon them depend the lives of our fighting soldiers and bluejackets; upon them depend the lives of the people on the vital home front. You doctors are doing a double service in keeping our men fit to fight and our people at home well and fit to work. The medical profession must surely have a strong feeling of pride when it hears or reads of victories on the battle front, for by its contributions it has made those victories possible at the smallest cost of life.

ABSTRACT: COMBINED SULFONAMIDE AND DRAINAGE TREATMENT FOR BRONCHIECTASIS

Combined sulfonamide and bronchoscopic treatment in 10 cases of acquired bronchiectasis resulted in a considerable reduction in daily sputum volume, with favorable alterations in the bacterial flora, Charles M. Norris, M.D., Philadelphia, says in *The Journal of the American Medical Association* for November 13 in a preliminary report of his investigations. The treatment consisted of sulfadiazine given by mouth in courses lasting from four to fifteen days and, as an adjuvant measure to improve bronchial drainage, the bronchi were drained by means of a bronchoscope at intervals of from two to four days during the time the sulfadiazine was being administered.

Dr. Norris says that the plan of treatment should prove of definite value as a preliminary to certain surgical procedures involving the lungs and that it is probably worthy of trial in cases of well-established nonsurgical bronchiectasis. He emphasizes, however, that his data are preliminary and that further study and observations will be required to confirm the impression that the measures described are of actual value.

"The frequency of chronic infectious diseases of the bronchi," Dr. Norris explains, "and the limitations of the various medical measures used in their treatment would appear to justify an investigation of the possibilities of sulfonamide therapy, yet a review of the recent literature shows only a few brief references to this subject. Although the pathologic changes in many of these diseases are at least partially irreversible, it would seem logical that diminution in the infectional factor should result in improvement. . . ."

Spraying of the bronchi with a solution of sulfadiazine was tried in some cases by Dr. Norris but with less satisfactory results than those obtained by oral administration.

THE AMERICAN DOCTOR IN THE WAR*

MAJOR GENERAL GEORGE F. LULL
Deputy Surgeon General, Army of United States
WASHINGTON, D. C.

This war has shown, as it has never been shown before, that the medical profession has done a wonderful job, collectively. But the job has not been performed alone by the doctors of the Army, the Navy, or the Public Health Service; the job has been done by all the members of the medical profession. There has been the greatest degree of cooperation between the Procurement and Assignment Service; for instance, that thankless job that many of you perhaps have performed, and most of you have received nothing but criticism for doing the job, but this criticism is honest in the over-all picture, and it is something you may expect if you stick your neck out. But we have had the closest cooperation between the members of the medical profession, the Army and the Navy—closer than we ever had before, and that cooperation has been extremely gratifying to us in Washington.

Indiana has sent a great many men to the armed forces, both the Army and the Navy. Indiana may have to send more men to the armed forces. No one can say definitely at this time how many doctors will be needed in the war effort. Indiana has sent her quota; in fact, she has gone further and has sent more than her quota. It is true that we have set up for the use of the population at home one doctor to a population of fifteen hundred. That is based on the best judgment that could be obtained, but if the war lasts any length of time, with the casualties among the medical officers and counting those who break down and have to be returned home, it may mean that more doctors will have to enter the armed forces. If you recall the last war, we did not have as many men in the Army, by a couple of millions, as we have right now. In that war we had thirty-three thousand medical officers; today we have thirty-nine thousand—six thousand more than when the armistice was signed. Today we have to spread them out thinly by utilizing the services of non-medical persons whenever necessary. It is very hard to notify a doctor when he goes into service that he has to do something different from what he has been doing in civil life. When a line officer goes into the Army or Navy he takes up a new profession. The doctor, however, is utilized in his specialty if possible, but there are times when they have to do different work from that which they did in civilian life. Some men take this graciously, they are apt to learn and become interested; others object, strenuously. The doctors with troops are something like firemen. Indianapolis maintains a fire department, and when they are not busy putting out fires they sit around and play bridge and rummy. The same thing is true where medical officers are trained for combat duty; only a small percentage of the troops in the Army are on combat duty, and this causes dissatisfaction among the medical profession.

A lot of changes have taken place since the last war. The casualties in forward hospitals were fifteen per cent, and in many cases the chance for recovery was nil, especially if the man had to be brought a long distance to the field hospital. In the Tunisian campaign only two and one-half to three per cent died. That is due probably to the use of blood plasma and the sulfa drugs, and to the fact that a man gets immediate attention as soon as possible after he is wounded. The best medical skill is used to save his life as near the front as possible. The medical men are close to the front and a man is given treatment there. Evacuation is much better in

It is a real pleasure to extend greetings to the medical profession of Indiana through your Journal, to those who are in the armed services as well as to those carrying on the work on the home front. Indiana Medicine has lived up to its traditions and has supplied the Army with many fine medical officers. Some of your members are in the far corners of the earth, but wherever they are, they are carrying modern methods of treatment to the wounded American soldier, so that he will have a better chance to return as a useful citizen than ever before in our history. As you know, our death rates in forward hospitals have been much lower than in similar units during the last war. This is due to a number of factors, one of which is that we have more capable professional officers treating the patients earlier than ever before. We are all looking forward to the time when these men may return to their civilian practice. This may be far in the future, but we can still go on hoping.

GEORGE F. LULL,
Major General, United States Army,
Deputy Surgeon General.

* Presented before the War Participation Luncheon at the ninety-fourth annual session of the Indiana State Medical Association, at Indianapolis, September 29, 1943.

North Africa than at Guadalcanal, where they had to be flown out to a base hundreds of miles away. But even at that evacuation of the wounded is still one of the biggest problems of every war.

The medical profession in this war is undoubtedly a better medical profession than we had in the last war. The difference in medical care in World War I and this war is not apparent in our everyday life, but it is apparent on the battlefronts; that is, we have men now who are qualified specialists and can be fitted into jobs as specialists. In the last war a specialist was a man, with the exception of a few men, who desired to report as a specialist. He probably had been a general practitioner, but he thought it was a good chance to get in and learn something about a speciality. That has been done away with. Many men who went into the war as specialists will come out better specialists. The American specialty boards and other graduate agencies can evaluate these men and they can be assigned to work in their specialties in a large percentage of cases, but not in all. Many will have to do other work because it must be done. The Army is so big that no one person or group of persons can control the assignment of thirty-nine thousand medical officers in the Army. But, by and large, I believe the job of specialist assignment has been carried out much better in this war than in the last one.

You men who remain in civil life have had a tremendous load thrown on your shoulders. You have had to carry on the work you carried on before this war, plus the work of one or more associates. It is a serious question and is of the utmost importance as far as the health of the older men is concerned. There are not enough replacements from the medical schools to replace the older men, and if this war lasts a long time the ratio of doctors to the civilian population is bound to decrease because the older men are not being replaced by recent graduates. The Army and the Navy take care of about eighty per cent of the graduates in medicine at present, leaving twenty per cent for the entire civilian population, and some of these youngsters are not physically fit, for if a boy is physically fit he is in the Army or the Navy. However, I think we can be sure of one thing—that the American soldier today is getting better medical treatment than he ever received in any other war, and, furthermore, that the majority of the soldiers in the Army are receiving better medical care than a large proportion of them ever received back home.

TRIBUTE TO INDIANA PHYSICIANS IN SERVICE*

LARUE D. CARTER, M.D.

INDIANAPOLIS, INDIANA

Two years ago I was asked to make some remarks before this meeting regarding the Indianapolis physicians who were then in the Medical Corps of the Army and Navy. At that time we reported 250 doctors of Indiana then serving in that capacity. This included officers of the National Guard, officers of the organized Reserves, and officers of the regular establishment. At that time there were registered in Indiana 4,132 licensed physicians. This, of course, included doctors who had retired from active practice, doctors who were employed as physicians by industrial concerns, and women physicians. At that time about 6 per cent of the licensed physicians of Indiana were serving in the armed forces. Many changes have come about in two years. Tonight we report 1,180 Indiana physicians who are now serving with the armed forces. Of these, 125 are in the Navy and 1,055 in the Army. There has been very little increase in the number of civilian doctors. We now show 4,165 licensed physicians in Indiana, which likewise includes those retired, those connected with industrial concerns, and women physicians. So 25 per cent of the licensed physicians of Indiana are now in service. When we deduct from this 4,165 those doctors who are ineffective, we can say that over 35 per cent of all the doctors in Indiana are now serving with the Medical Corps of the armed forces.

It is to you gentlemen of Indiana who are now serving in the Medical Corps of the Army and the Navy that this Association sends greetings and besh wishes. We do not know where you are. We know many are still in the home country, some are in the South Seas, some in Alaska, in Iceland, in the British Isles, Africa, Sicily, on the hot plains of Italy, in fact, all over the world. But wherever you are, you have our hopes, our fears, our prayers. We are very proud of you gentlemen because you are not afraid. You are not afraid to give up those things which the world holds dear—your home, your family, your life itself, to fight for a cause which is right and just. I cannot say much to you gentlemen; I do not know what to say. You all know how we feel—honored to have known you. You all know that we are looking forward to the time when you will be back in your home country, when we will look to you for guidance and leadership. There is only one thing I can say, and that is, God bless you!

* This tribute was given at the annual banquet of the Indiana State Medical Association, at Indianapolis, September 29, 1943.

MAJOR PROBLEMS OF THE MEDICAL DEPARTMENT OF THE NAVY DURING THE PRESENT EMERGENCY*

REAR ADMIRAL DALLAS G. SUTTON
Washington, D.C.

Since Pearl Harbor a great deal of water has gone over the dam. As you know, the Navy has expanded to undreamt of proportions. New fields of activity have opened up. The dispersion of forces has been practically unlimited, and as a result of this dispersion the medical department has functioned in a more diversified manner than ever before. The expansion of the service has been made necessary by the global distribution of combat areas.

Before the advent of hostilities the major part of our fleet was in the Pacific area. Certain small forces were in the Atlantic, small squadrons and individual ships were engaged in tasks that carried them to Europe and occasionally to South America. The Marine Corps, then a relatively small organization, was engaged in duty aboard ship and on minor expeditionary duties in Central America and certain islands bordering on the Caribbean Sea. Since that time our Navy has expanded many times, ships of all classes have been added to the fleet, and today the task of this immense organization has increased to the extent that fleets and task forces have been scattered to all parts of the globe. In the eastern area we find task forces functioning from Iceland to the Cape of Good Hope and from the Eastern Seaboard to the Far East through the Mediterranean. In the Pacific, as you also know, our task forces are engaged in combat duty from the Aleutians to Australia and from our west coast to Midway and beyond. Those of us who sit at home and study maps to gain some idea of distances between home bases and the scenes of combat activity have no appreciation of the actual distances involved nor of the strain incident to long cruises when the personnel of ships is constantly on the alert against surprise attack, so as to be prepared for any contingency, nor do we have any real appreciation of the planning that is incident to the equipment and supply of these forces that are engaged on these combat missions.

By and large, the medical profession of the country and the public generally have been kept advised of all essential details having a bearing on general problems and on specific problems affecting the efficiency of the organization, as well as on the difficulties that are being encountered. Those of us at home have been inclined to feel that information of certain types has been withheld beyond reason, but that actually has not been true. As a matter of principle, all information of interest has been given out as soon as that information was considered not to have a specific bearing on combatant activities. The Medical Department of the Navy, for instance, could not now divulge the location of certain base hospitals and mobile hospitals that are functioning in connection with troops and task forces in the Southwest Pacific, for the very good reason that this information in the hands of the Japanese might prove to be useful in anticipating our projected plans for progress towards Japan. On the other hand, we have been told of the successes that we have had in minimizing fatalities incident to war wounds in this area, and information has been given out relative to means that have been taken to rapidly transport wounded men from combatant areas to base hospitals in the general vicinity of Australia and New Zealand.

In looking back at our accomplishments since Pearl Harbor, even the most experienced members of our Medical Corps are astounded at the smoothness with which results in all directions have been attained. Unless one refers to figures, it is difficult to have any appreciation of the actual expansion that has taken place. The most expressive of these figures are in connection with personnel and disbursements. In December 1941, for instance, there were approximately 826 medical officers in the Navy, 824 nurses, 13,000 hospital corpsmen, 9,000 hospital beds, and the monetary value of supplies and equipment procured in that year was approximately $500,000. Today we have approximately 9,700 medical officers, 7,000 of whom are in the Reserve Corps; 6,200 nurses; 3,700 Waves; 70,000 hospital corpsmen; 57,000 hospital beds, and the cost of maintaining and supplying the department is approximately thirty-five million dollars. Figures may not be definitely expressive, but, to my mind, the ones I have just cited are indicative of the relative size of the organization, and they are also expressive of the task that has confronted us. The surgeon general is keenly anxious that the medical profession of the country shall be kept informed of our activities. Unfortunately, it is not possible for us to furnish you with the information that you would like to have, but he would like for you to know that he is making an effort to publicize as much of the essential material as may be possible.

Insofar as our accomplishments are concerned, I think that I can say without danger of contradiction that a large part of our success has been due to the splendid coöperation, interest and enthusiasm of the reserve officers who have filtered into our organization. I personally feel that the one outstanding accomplishment of this war has been the success of your friends and mine who have been commissioned in the Medical Corps of the Navy and who now, in this short period, have become the backbone of our organization. Traveling about the

* Presented before the General Meeting at the ninety-fourth annual session of the Indiana State Medical Association at Indianapolis, September 29, 1943.

country as I do on inspection trips, visiting all of our hospitals and training stations in a certain area, I have marvelled at the speed with which these splendid physicians have become an integral part of our organization and at the splendid efficiency that is universally demonstrated in every essential direction. In each one of our organizations, including hospitals of all types and sizes as well as training stations and other activities, better than 90 per cent of the complement is made up of reserve officers. These men are making a great sacrifice and our hope is that at the termination of the emergency those desiring to return to their former status in civilian life will find that their professional readjustment will be without difficulty.

It occurs to me that you may be interested to know something about our mobile hospitals. You have read about them in the papers and have seen pictures of these units in the movies and elsewhere. The history of their development has been very interesting. The surgeon general himself originated the idea prior to the beginning of the war and succeeded in formulating plans for a hospital of this type. The idea was to plan for and place in commission such a hospital that might be used in connection with task forces outside of the continental limits of the United States. This first hospital was planned to house approximately five hundred beds, and its facilities were to include a modern operating suite with equipment to handle surgery of any type that might be encountered in connection with the treatment and handling of war injuries. In addition, such equipment as x-ray, physiotherapy, a complete commissary section, a laundry, equipment for rendering water potable and quarters for officers, as well as hospital corpsmen personnel, was included. In planning such a hospital as the name implies, it was necessary to use materials and facilities that would insure rapid construction from building material that had been transported in the holds of ships. This fact necessitated planning for the stowage of this material on ships so that it could be moved off in the desired sequence in order that confusion would be minimized and such valuable equipment as an x-ray machine would not be exposed to the weather during the construction of the buildings themselves.

The first hospital was set up at Guantanamo Bay, Cuba, and during the continuance of this maneuver the experience was utilized to iron out the various defects in the plans that it was anticipated would develop. Actually many headaches arose, but the experience was invaluable and today the same procedure has been repeated on numerous occasions in the Southwest Pacific with excellent results. Today many of these hospitals are in operation and some have been expanded to more than one thousand beds. Others are in the process of formulation, so that we may be prepared to further expand this type of operation where it is necessary. The staffs of these hospitals are headed by one or two regular service officers of experience, and the remainder of the staff is made up of reserve officers, many of whom were outstanding men in their specialties at home.

You are all very familiar with the results that we have obtained in combatant areas in connection with war injuries. You are familiar with the fact that the death rate in connection with these cases has been remarkably low, in fact, an over-all rate of less than 2 per cent. In view of our experience during the last war, this is remarkable and it has been due to a number of factors. One of the most important of these has been the splendid service given by our medical units and personnel generally in the field. In Guadalcanal, for instance, it was not unusual for our wounded men to receive major surgery within one-half hour of having been injured, and many of these patients had received plasma and morphine within a few minutes after being wounded. In connection with this early treatment, too much credit can not be given to our hospital corpsmen who have risked their own lives in many instances in order to bring in the wounded and afford treatment for shock under fire. All of our medical officers who have returned from this area have reported that this group of personnel has been outstanding. Some weeks ago I interviewed a number of patients in one of our California hospitals who informed me that they had had abdominal sections in less than one-half hour after having been hit by shrapnel fragments. Another element that has a bearing on the recovery rate has been the relative absence of the organism causing gas infection. The authorities are of the opinion that the low rate of gas infection has been due to the type of terrain where the forces have been engaged. In Europe the ground was apparently heavily infected, but in the islands of the Southwest Pacific this apparently has not been true. The use of sulfa drugs, the utilization of tetanus vaccine and the immediate availability of blood plasma have all had a very favorable influence.

Another element that has had a bearing on the recovery rate has been the speed with which patients have been moved from combatant areas to base hospitals that have been established at the rear. A large majority of these patients were transported by plane, for instance, from Guadalcanal to Santos and from there by transport or hospital ship to New Zealand or Australia. Some professional judgment had to be used as to the type of case to be transported but, by and large, when a patient's general condition was considered to be satisfactory the trip was undertaken. These planes usually flew at a level of approximately three thousand feet, so that altitude had little bearing. When the patient's general condition was excellent and when shock was not a factor, there was no hesitancy in transporting by plane no matter what the type of injury might have been. As a result, as far as I have been able to determine, there were but three or four deaths in a plane when patients were being transported in this way. Ordinarily the patient was not transported who had had abdominal section, until after postoperative tym-

panites had subsided. During these trips by air, which usually took from four to five hours, personnel and equipment to give plasma and morphine were sent along. One patient that I personally know of, who had received a shrapnel injury of the back, including the severance of the spinal cord, made this trip without incident and lived for some days after his arrival at a base hospital.

The profession as a whole and the public have not heard very much about our medical problems. Up to the moment none of these have been insurmountable, but most of the illnesses encountered have been responsible for considerable invalidism, and as a result the expected number of patients have had to be hospitalized in base hospitals, and a number have been returned to the United States. Our major problem in the Southwest Pacific, of course, has been malaria. We have encountered all types of this infection, but fortunately a relatively small number have been of the malignant type. In anticipation of this problem entomological units were landed with troops. All known repressive measures were used, but the overwhelming incidence of infection in natives on a number of these islands insured trouble. Medical officers returning from this part of the world have indicated that the use of atabrin as a suppressive has been fairly successful. Three-fourths of a grain daily and one and one-half grains on Sunday were given routinely when troops were exposed to the infection. Un-

THE UNITED STATES NAVY-MARITIME COMMISSION SAFETY AND INDUSTRIAL HEALTH PROGRAM IN CONTRACT SHIPYARDS

PHILIP DRINKER
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Harvard School of Public Health
and
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BOSTON, MASSACHUSETTS

With the rapid expansion of shipbuilding at the outbreak of the war and the tremendous increase in numbers of men and women employed in shipyards, it soon became apparent that there were many problems of industrial health and safety that required specific attention. As a result of nation-wide surveys of working conditions in shipyards certain Minimum Requirements for Safety and Industrial Health in Contract Shipyards were promulgated and approved by the Navy and Maritime Commission as standards applicable to yards having contracts with either or both of these agencies. The dual purpose of the Minimum Requirements was both to insure at least adequate facilities, equipment, and personnel to operate effective safety and health programs and to act as an outline of preventive measures for the control of accident and occupational disease hazards.

In December last year a permanent staff of Safety and Health consultants was established. The duties of the consultants are to inspect shipyards in their respective regions for compliance with the Minimum Requirements and make such recommendations as may be necessary. In addition the consultants effect an interchange of information, advise and instruct and confer with management and labor.

The most frequent industrial health questions in shipyards have to do with the maintenance of sufficient medical personnel and facilities to keep pace with increasing employment, the institution of preplacement physical examinations, the temporary ventilation of ships under construction, and the provision of modern sanitary arrangements.

By no means have all the shipyards of the country reached a state of perfection in matters of health, safety, feeding, and sanitation. However, certain accomplishments have been made toward that end. In some instances it has been possible to render assistance in obtaining the services of physicians for booming shipyard areas. Efforts to improve ventilation programs have culminated in the production of an educational sound-slide film, "Welders—To Your Health." Yards in rural locations have made extensive improvements in sewage disposal, food handling, and water dispensing where previously such functions had been below standard. In many cases cooperation of federal and state agencies concerned has been sought and has proved most helpful. The over-all accident frequency rate for Navy and Maritime Commission contract shipyards was reduced 20 per cent during the first four months of 1943.

The increasing scarcity of manpower and high ship production goals have made vital the necessity for conserving available manpower and promoting the physical welfare, health, and safety of more than one million shipyard workers. To quote from a joint statement by the Secretary of the Navy, Frank Knox, and Rear Admiral E. S. Land, chairman of the Maritime Commission, "Aside from the weight which must be given humanitarian considerations, it is simply good common sense that as much care and attention be given to protecting the human factors in the war production program as is given machines."

fortunately, untoward symptoms in the form of abdominal cramps, loss of appetite, diarrhea, headaches, and at times vomiting developed. These, however, would disappear on withdrawal of the drug. Prolonged use frequently produced yellow pigmentation of the skin and sclera, which also subsided on withdrawal of the drug. The problem was a complicated one in a number of instances, and the appearance of epidemic hepatitis not infrequently rendered the differential diagnosis difficult. In some instances, it was found that men were not taking atabrin because an idea had gotten about that it would cause impotency.

I recently have learned that very definite results are being obtained on a number of the islands where entomologists have been engaged in sanitary projects, looking towards the eradication of the vector. As a result of drainage and other measures taken in this connection, the incidence has been very greatly reduced, and in some places where the disease was formerly very prevalent very few new cases are now found. The use of an insecticide has been of major assistance. This chemical is effective in enclosed and semi-enclosed spaces, and to a marked degree in foxholes. In such buildings as Quonset huts it is very efficacious.

In this country in naval and training stations our major problems have been in regard to meningitis, acute articular rheumatism, duodenal ulcer and neuropsychiatric conditions. Meningitis very probably will continue to be a problem in so far as incidence is concerned, but fortunately the use of sulfa drugs has so reduced the mortality rate that we no longer fear it as we did in the past. Acute articular rheumatism has been responsible for a very large number of hospital days, especially in areas about training stations. Our experience has been that approximately 35 per cent of these patients developed organic heart disease, and for that reason have to be surveyed from the service. Epidemiological units have been making a special study of this problem, and it is anticipated that during the present fall and winter we may have some means of reducing the incidence. Detailed study already made has given us valuable information that will allow us to make intelligent arrangements for the housing of men in barracks, with a view to minimizing the problem. The sulfa drugs will very probably be utilized under controlled conditions to determine the bearing that they may have on the problem. Large numbers of cases have duodenal ulcers, or those exhibiting the ulcer syndrome are constantly with us, as they were with the Canadians prior to our entry into the war. We find only 30 per cent of those presenting ulcer symptoms are actually on an organic base. However, we have found that it is more profitable not to continue these functional cases on a duty status, since they return to the hospital ordinarily very shortly after having completed their first period of hospitalization.

The treatment and hospitalization of neuropsychiatric patients has from the beginning been our major problem in so far as traffic is concerned. In spite of the screening process that was instituted at the beginning of the war at training stations throughout the United States, we continue to get relatively large numbers of patients from all of the war areas. Fortunately, many of these cases are of the borderline type, so that many of them are rehabilitated and either return to duty or are discharged from the service as competent to take care of themselves. A small percentage are actually psychotic, necessitating long hospitalization. The refractive cases eventually are transferred to the Veterans' Administration or discharged from the service.

A study of the neuropsychiatric cases received in this country has demonstrated that these individuals may be classified under four general head-

I am indeed happy to be able to express to you men from Indiana greetings and sincere thanks for the wonderful job you are all doing in the service of our country during this time of emergency. The medical profession of Indiana has much to be proud of, for Indiana was practically the first state in the Union to supply its full quota for the Army and Navy. We follow with interest and eagerness the news of the work you are doing and the experiences you are having, and we are proud of the excellent record you are making. We older men are in this war, too, working harder than we ever have, fighting to maintain the standards of medical practice set up by our profession and to prevent a controlled form of medical practice from gaining a foothold in this country. We shall continue to work and fight so that when you younger men return you will find the freedom from controlled medicine that your excellent state organization and our national organization are doing everything possible to maintain. All of us realize the hardships imposed upon you at having to leave your home, your dear ones and your practice, in order to serve your country, and we want you to be able to return to a civilian life in which we have fought to preserve the freedom to practice medicine as we physicians deem best. Again, let me extend my greetings, and may God speed the day when you are back home again.

E. L. HENDERSON, M.D.,
Chairman of the Fifth Corps Area.

ings. The first, those of simple fatigue and mild fear status, ordinarily respond to simple treatment. All evidence emotional tension, restlessness, nervous irritability, some anorexia and varying degrees of insomnia. The second group, ordinarly diagnosed as combat fatigue, exhibit insomnia tremors, increased local sweating, mood changes and a startle reaction. These patients usually are freed of their symptoms on removal from the combat area when they have had some degree of constructive rehabilitation in the form of assurance and minimal psychotherapy. The feeling has developed that the simple fatigue conditions and the combat fatigue would respond rapidly to treatment if they could be treated in or relatively near the combat areas. For this reason a neuropsychiatric hospital is now being established in the Southwest Pacific, where a trained staff will attempt to rehabilitate these patients. It is believed that immediate narcosis, to insure full relaxation and sleep at the onset, will render these individuals available for constructive psychotherapy, and it is hoped that many of them will be available for return to duty after a reasonable time.

The third and largest group of patients in this classification are those exhibiting a definite psychoneurotic reaction. A study of these cases indicates that a majority had a predisposition based on evident emotional instability which was evident. The general reaction in many of these cases was indicative of an anxiety neurosis. The early symptoms are ordinarily suggestive of an acute panic superimposed upon abnormal fatigue, night terrors, insomnia and certain mood changes of the depressive type. These cases need more detailed study and longer hospitalization than the other two entities enumerated in the above, and most of them are considered not to be available for a full active duty status.

The psychotic types seen during this emergency are predominantly those of dementia praecox. Very few cases of manic-depressive psychosis have been seen, and in contrast to the last war there have been few cases of paresis. All of these patients are eventually returned from the Southwest Pacific and from the Mediterranean area to our permanent hospitals in the United States. There they are carefully screened and treated over a period of from two to three months. At the end of that time these cases are being transferred to the Public Health Hospital at Fort Worth, Texas, and to St. Elizabeth's Hospital, Washington, D.C., where they are observed and treated for a still longer period before being transferred into the custody of the Veterans' Bureau authorities.

A very important function of the medical department, that has been developing to a considerable extent in the past year and a half, is that of research. An outstanding group of physicians, physicists, chemists and trained investigators have been gathered together in a well-equipped building at the Naval Medical Center just outside of Washington, D.C., to study problems having a bearing on naval medicine. This group and other investigators connected with our larger universities throughout the country are giving full time to such matters as oxygen supply to aviation pilots, gas masks, protective clothing, the treatment of burns, the physiological and therapeutic action of penicillin, and special studies have been made in connection with atmospheric hygiene having a bearing on conditions found in submarines and airplane carriers. The data and information obtained from these studies have been very helpful in connection with the hygiene of these ships. It is hoped that after the expiration of the present emergency the medical department will be permitted to carry on research, since ordinarily our civilian research laboratories do not entertain projects that have a direct bearing on Navy problems.

It now seems evident that our major problem following this war will pertain to the introduction of this country to disease entities that were formerly endemic only in tropical areas. As an illustration of this fact I need only refer to recent experiences in Hawaii, resulting from the introduction of dengue to that area. Vectors that transmit this disease were already present on the island when the disease was brought in by personnel from the Southwest Pacific. As a result, an epidemic developed in Honolulu. The same conditions might arise in this country as a result of the introduction of malaria, dengue, yellow fever and a number of other communicable diseases that are not now present to any serious extent. The same danger will exist because of the possible transmission of diseases by airplane when normal aviation facilities are provided between this country and the various outside districts. These matters are now being given very serious study by all branches of the government, the Army, the Navy, the Public Health Service and other activities having to do with international public health. Many of our authorities agree that the possible introduction of tropical diseases will necessitate the accentuation of the study of tropical diseases in our medical colleges, so that the oncoming doctors may be as familiar with these entities as they are now with other conditions ordinarily classified under Internal Medicine.

In view of the lack of time, I have been able to accentuate only some of the subjects in which I thought you would be interested. However, if during the course of the meeting any of you should desire to discuss points which I have not covered, I will be very glad to give all information that can be given. The Medical Department of the Navy is keenly desirous of obtaining assistance from individual physicians as well as from specialized groups. At present we are receiving assistance through organized medicine from the American Medical Association, from the National Research Council, and from the various committees associated with these organizations. This help is greatly appreciated, and we should like to have everyone feel that suggestions and recommendations from all sources are given every consideration.

THE ARMY AIR FORCES' CONVALESCENT-REHABILITATION TRAINING PROGRAM

(The First Year's Experience)

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In January, 1943, it was my privilege to present before the Secretaries' Conference of the Indiana State Medical Association, Indianapolis, a new conception of convalescent care; it was a preliminary report of the Army Air Forces' Convalescent Training Program then recently inaugurated at the Station Hospital, Jefferson Barracks, Missouri. It seems appropriate that almost a year later a report of the progress and results of this program be summarized.

On December 1, 1942, the Air Surgeon, Major General David N. W. Grant, approved the principle of Convalescent-Rehabilitation Training in Army Air Forces' hospitals. On December 14, 1942, General H. H. Arnold, Commanding General of the Army Air Forces, directed that such a program be established in all Air Forces' hospitals. To date, some 25,000,000 man hours of physical and educational training have been given in Army Air Forces' hospitals. The teaching rate at the present time is approximately 2,750,000 man hours per month.

The Convalescent Training Program is designed for the ordinary sick soldier in our station hospitals. Physical reconditioning is accomplished by a systematic, graduated series of calisthenics and corrective exercises. These are first given in their mildest form even to bed patients. The exertion is gradually increased to a full organized period of close-order drill, outdoor games, recreation and ward fatigue. Exercises begin in bed two days post-operatively, to prevent muscles from becoming flabby. A pneumonia patient will begin deep breathing and hand, arm and chest exercises as soon as his temperature is normal. This simple, early, exercise routine improves the muscle tone of the patient and is an excellent morale factor. It continues him as a part of the group.

Conditioning camps have been established under medical supervision, in some of our basic training centers, to strengthen recently inducted, under-par soldiers, unable to keep up with the regular program, and ambulatory patients requiring a long period of convalescence. These conditioning camps function in the same manner as a spring training camp for a baseball team.

Patients in Army Air Forces' hospitals have been able to benefit from heliotherapy, as well as physical exercise, by the planting and tending of over two hundred fifty Victory gardens. Some in the desert areas have even had an irrigation system built by convalescent patients.

The educational portion of the Convalescent Training Program is organized to meet the needs of all special types of Army Air Forces' installations. In the basic training centers the emphasis is on self-protection, gas warfare, camouflage, booby traps, land mines, map reading, judo, and first-aid, as well as military courtesy. The motto is "WHILE YOU ARE SICK IN THE HOSPITAL TODAY YOU MAY LEARN SOMETHING THAT WILL SAVE YOUR LIFE SIX MONTHS FROM NOW." All types of training, orientation and morale films are used daily in the educational program. Train-

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WASHINGTON, D.C.

It is a pleasure to have this opportunity, at the beginning of the third year of America's war against the enemies of democracy, to greet you medical officers who are serving the fighting men of the Army Air and Ground Forces and of the Navy and Marines. Largely drawn from civilian practice, you are providing medical care to the armed forces in keeping with the highest standards of the medical profession, and in an organized manner which the professional military officer can view with great satisfaction. I wish especially to congratulate you Flight Surgeons and other medical officers of the Army Air Forces Medical Services for your initiative, enthusiasm, talent, and energy in providing excellent care for the Air Forces' flying and ground personnel, and for your tireless search for measures which will enhance the physical fitness and spiritual welfare of the skilled and courageous young men who are flying our "Flying Fortresses" and "Thunderbolts," our "Liberators" and "Lightnings," to victory. You medical officers are to a great extent responsible for the popular and axiomatic impression that "Nothing is too good for our men."

ing aids, visual aids, and handicraft with model airplanes, tanks, ships, and camouflage nets have proved of excellent educational and therapeutic value.

Special classes have been organized for the teaching of illiterates and for review courses in mathematics and physics. A daily summary of current events and an orientation course in world geography plays a lively part in the curriculum.

In the technical schools the program is modified to meet special needs. At the radio schools, for example, special code receiving sets and sending keys have been placed in the hospital wards so that men may continue to practice even while in bed. During certain periods of the day the wards are blacked out and the men send and receive blinker code from bed to bed. Formerly, it was noted that men would lose their code speed after a week without practice. Now our patients are leaving the hospital with *maintained* and, in many cases, increased speed.

In the hospitals serving the flying fields and tactical units, geography, geopolitics, airplane identification, reptile-insect-pest control lectures, lectures on arctic and tropical medicine and field sanitation are the subjects stressed. Medical officers have designed a series of patient-doctor talks to give the men a knowledge of the symptoms, cause, treatment, and prevention of various tropical diseases. This has been of tremendous help in orienting these soldiers in their new environment and allaying the fear that comes, naturally, when going into unfamiliar surroundings.

Phonographs and records for the teaching of thirty languages and dialects, designed to teach a man a vocabulary of 150 words in seven hours of study, have been made available to all Army Air Forces' hospitals. The soldiers have shown great interest in this particular field. Special classes in aquatics, life saving, and advanced first-aid are given in all installations where practicable.

Patients about to be released from the Army, on a Certificate of Disability Discharge, are given orientation lectures encompassing their relationship to the Army when they return to their homes. They are invited to attend lectures on first-aid, gas warfare, et cetera, in the hospital, so that upon their return to civilian life they may participate in the program of civilian defense. Also, these men are interviewed by a medical officer in charge of their case. They are told why they are being discharged from the Army; their disability is frankly discussed with them. Recommendations are given as to further medical treatment and the medical contacts that should be made after their return home. It is felt that in this way the Army Air Forces' doctor can help educate the patient as to his physical condition and assist his family doctor on the home front in seeing that he gets adequate medical care.

In addition to the regular staff, instructors in the Convalescent Training Program are obtained from volunteer officers assigned to the medical department, or airfield. But by far the largest source of supply is the patients themselves. Seventy-five per cent of the instructors used in the program are convalescent patients who have seen foreign service or who are specialists in military or related civilian subjects.

The results of our experience with the Convalescent Training Program have been most gratifying. Spot checks in various hospitals have shown hospital readmissions reduced because men are being sent back to duty in much better physical condition. The period of convalescence in certain acute, infectious, and contagious diseases has been definitely shortened. One hospital reported a reduction from eighteen to eleven days in patients with measles and a drop from thirty-three to twenty-three hospital days in convalescents with scarlet fever. A recent study of 350 cases of virus pneumonia, running two parallel groups, revealed that the group permitted to convalesce in the routine manner averaged forty-five days of hospitalization, with 30 per cent recurrence. The group that was very carefully supervised and integrated into the physical reconditioning program averaged thirty-one hospital days, with only a 3 per cent recurrence. The necessity for granting sick leaves has been abolished almost entirely. With travel conditions as they are, it was found that many soldiers

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It is difficult to convey the pride I feel in being able to greet the physicians and surgeons of the armed forces. My pride finds substance in the work of the ten thousand medical officers of the Army Air Forces. At the time the Office of the Air Surgeon was established, just prior to the outbreak of war two years ago, Air Forces' medical officers numbered only eight hundred. We then had only four hundred Flight Surgeons and Aviation Medical Examiners. We now have three thousand four hundred. All told, our officer strength in medical services has increased from one thousand to twenty-two thousand in this two-year period. These officers are now providing medical, nursing, dental, veterinarian, administrative and sanitary leadership and services in pursuance of the mission of the Army Air Forces—to provide air force units properly organized, trained, and equipped for combat operations. My congratulations to these people who are engaged in around-the-clock and around-the-globe maintenance of the physical and mental fitness of the men who are carrying the attack to our enemies.

going on convalescent leave became ill enroute or at home; now when they leave the hospital, they are *immediately* ready to step into a full training schedule. The educational phase of the training program has been enthusiastically received by the soldiers in Army Air Forces' hospitals, and a wealth of general military knowledge has been disseminated throughout the entire Air Forces.

We have reached the peak of *training* in this present global war. Each day finds greater numbers of soldiers overseas in the theaters of operation. Military operations mean battle casualties, and the war-weary and wounded are now returning in ever-increasing numbers. Convalescent *training* must of necessity change to the *rehabilitation training* of casualties.

To meet this challenge, the Army Air Forces have established eight rehabilitation centers at strategic areas throughout the continental United States. At these units every facility is being utilized to bring about the mental and physical rehabilitation of the soldiers. Special broad courses in transitional vocational training are being offered to enable a man to change from one type of job to another. Physicians, educators, physiotherapists, psychologists and psychiatrists, having already demonstrated their ability in the Convalescent Training Program, are used to staff these centers.

To further orient this personnel to the field of rehabilitation, post-graduate courses are being given at the Institute for the Crippled and Disabled, 400 First Avenue, New York City. Every facility is being used to assist the physically and psychologically wounded soldiers to make a new place for themselves in military or civilian life. Trained psychiatrists, familiar with the psychology of flying personnel and the convalescent soldier, are being utilized for psychotherapy and for consultation service in readjustment problems. The flight surgeon has a paramount place in the rehabilitation center. For years, the flyer has been taught to look upon the flight surgeon as his family doctor and as a man to whom he can come with all of his personal problems. This has been of primary importance in the maintenance of the high morale of the flying crew and will be invaluable in their rehabilitation.

It is the policy of the Army Air Forces that every man should be utilized to the fullest extent of his ability; wherever possible casualties will be retained in the military service and, if necessary, retrained for new assignments commensurate with their ability. However, if discharge from the service becomes a necessity, the soldier is followed through and aided in finding a productive place for himself in civilian life.

From the foregoing review it is submitted that the first year's experience with Convalescent-Rehabilitation Training in the Army Air Forces has been more than gratifying. Millions of man hours have been saved, hospital readmissions have been reduced, and convalescent periods shortened. The morale of patients has greatly improved because these men have been kept busy with constructive effort.

In the post-war days ahead it is hoped that such a program may find its counterpart in many civilian hospitals, so that the medically, surgically, and psychologically handicapped will not be subjected to endless days of boredom and worry about their future security. Instead they will begin, in the early days of hospitalization, a planned physical and vocational retraining regimen that will enable them to return to a self-respecting, self-supporting, useful life.

ABSTRACT: DEVISES AN IMPROVED FIRST AID TREATMENT OF WOUNDS, BURNS

Pointing out that the medical profession has made great strides in the care of accident victims at the hospital but that many of them are poor risks when they arrive due to inadequate first aid, Colonel John L. Gallagher, Medical Corps, Army of the United States, reports in *The Journal of the American Medical Association* for November 13 an effective procedure for the immediate treatment of wounds and burns at the scene of an accident by nonprofessional and only briefly trained persons.

The importance of the article is emphasized by *The Journal* which says in the same issue that Colonel Gallagher's "work will have far reaching effects on first aid in civilian as well as military life. Many lives can be saved, Gallagher claims, by the early application of simple sterile compression dressings to be applied to severe burns or other large surface wounds immediately at or near the scene of injury. The technic is simple and can be applied as a first aid measure by relatively untrained persons. Compression dressings may become standard equipment for all first aid kits. The proper application of these dressings should be made familiar to the police in squad cars, nurses' aides, street car and bus motormen and conductors, firemen, workers in industry and many others."

Three of the five new types of compression dressings are packaged with maximum compression for economy of space. One of them, for example, occupies but little more space than a package of cigarettes. When released it will have adequate bulk in great depth to cover an area approximately 4 by 4 inches while still in a sponge shape, and when further unfolded will offer a cover type of compression dressing of 36 square inches. A larger type will cover 81 square inches. The pad contains 8 ounces of mechanic's waste (a substitute for the unobtainable sea sponge), covered by one thickness of mesh gauze overlying two layers of coarse gauze.

Colonel Gallagher's pads are packed in a waxed pack. Each pack contains sixteen sterile pads, four of them having a 5 inch by 5 yard roller bandage anchored to them. The pack also contains two operating caps and three face masks (the extra one for the face of the patient).

BATTLE CASUALTIES WITH SPECIAL REFERENCE TO THE USE OF THE SULFONAMIDES*

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The mission of a military medical department is to keep as many men at as many guns as many days as possible. This mission can only be accomplished by a well-organized and a well-trained personnel. In a military organization we must discard specialism and become medical trouble-shooters, prepared for any kind of job at any time. By this I mean that in addition to being a fair general surgeon, we must also be a urologist, orthopedist, internist, epidemiologist, entomologist, as well as other specialists. We must be a "Jack of all trades" in medicine.

Our armed forces are now engaged in a bitter struggle with the hordes of Hitler in Italy and the Japanese in the Southwest Pacific. Jungle warfare involves battle with two kinds of enemies; in addition to man, we must fight nature as well. On the Bataan Peninsula it was estimated that 40 per cent of the United States fighting forces were stricken with dysentery. Many acquired malaria. Forces fighting on jungle terrain must be of the highest physical standard and acclimated to the increased humidity, temperatures, and rains incident to the tropics. Particular emphasis must be placed on the use of sodium chloride as a means to prevent heat exhaustion. Skin diseases, particularly fungus infections, are prevalent, and venomous snake and insect bites must also be taken into account. Owing to such threats against the physical well-being of the men in our armed forces, it is indeed fitting to mention the tropical and exotic diseases briefly. I want to mention first that all members of combat forces are immunized against smallpox, typhoid, tetanus and yellow fever, and, if duty is to be in the tropics, against typhus and cholera.

The tropical diseases which assume the greatest military importance are malaria and the dysenteries.

Malaria is of world-wide distribution, but the different species of parasite vary. It can be controlled, as you know, by a proper camp selection site, eradication of breeding spaces by oiling, bed nets, insect repellents, and chemical prophylaxis with quinine or atabrin. Treatment in the average acute case, any species, is effective by the combined treatment of quinine, atabrin, and plasmochin.

Dysentery presents a diagnostic problem, for frequently laboratory means for the diagnosis of bacillary and amebic dysentery are not available on ships or with troops in combat zones ashore. It then becomes necessary to make the diagnosis on epidemiological and clinical features, and by the use of specific drugs. Bacillary dysentery is by far more common than amebic dysentery. Even in areas where dysenteries and diarrhea are very common, less than 10 per cent are of amebic origin.

Bacillary dysentery, when severe, is a prostrating disease, while on the other hand amebic dysentery usually has relatively mild constitutional symptoms. In the treatment of bacillary dysentery sulfaguanidine is the drug of choice irrespective of the toxicity accompanying the disease. If there is no improvement within four days the drug is discontinued. If the dysentery is amebic in nature, striking improvement will result within twenty-four to forty-eight hours following subcutaneous injection on two successive days of one grain of emetine.

The revolutionary changes in the methods of warfare and the tremendous advances made in the increased destructiveness of explosive missiles have furnished us with many new variations of war casualties seen in previous conflicts.

Although burns continue to furnish the largest number of casualties, injuries caused by anti-aircraft fire, bomb explosions on the upper decks or between decks, near misses from bombs, machine gun bullet wounds, sudden compression injuries of the abdomen, caused by underwater explosions, and blast concussion of the lungs contribute a large number of cases. In addition to these casualties we may add "immersion foot," from exposure, and chemical dermatitis, from contact with particles of ammonium picrate.

During battle it is necessary to render immediate first aid as a life-saving measure and as a means of keeping the ship fighting and in action. First aid must be given on the individual battle stations by the personnel manning the stations, since all the hatches are dogged down and the individual compartments sealed in order to maintain the water-tight integrity of the ship. Contrary to our civilian medical teachings, treatment is rendered first to the less seriously injured and last to the more seriously wounded. We must always keep in mind that the mission of the medical department is to keep as many men at as many guns as many days as possible.

On board a combatant ship, when action is over and access routes are opened, there may be several hundred casualties. The wounded are removed rapidly to the nearest collecting stations and then

* Read before the General Meeting at the ninety-fourth annual session of the Indiana State Medical Association at Indianapolis, September 29, 1943.

to the major battle dressing stations, where such treatment is administered as is necessary to permit their evacuation to a hospital ship or a hospital ashore. At the main battle dressing station the cases are classified and segregated into the following groups: (1) cerebral concussion without apparent physical injury; (2) burns; (3) bullet and shrapnel wounds; and (4) fractures. Operative and treatment teams, which have been previously selected from the medical department personnel and trained, carry out treatment in the segregated groups. The handling of cases in this manner results in a minimum loss of time and establishes with greater accuracy the order in which they should receive attention. In all cases of wounds or burns, a booster dose of tetanus toxoid is given. In certain indicated cases gas bacillus antitoxin is also administered.

Morphine, the sulfa drugs, and blood plasma have well established themselves as the most important armamentarium with which we are equipped to treat battle casualties. This may well apply to casualties from major disasters in civil life.

During the attack on Pearl Harbor, December 7, 1941, approximately 50 per cent of the casualties resulted from extensive flash burns. The large majority of these were of first and second degree. This large number of burns was due to the lack of protective clothing, for many of these men who received injuries were stripped to the waist. Even very thin clothing material will provide adequate protection against flash burns. This is particularly true aboard our ships, for when the men are in adequate protective clothing the ratio of burns to other injuries approaches a zero level.

The majority of the burns received aboard the ships at Pearl Harbor were treated locally with tannic acid (either in the form of jelly or solution), boric acid ointment, or gentian violet. Sulfanilamide was administered orally. In some cases, however, sulfadiazine or sulfathiazole were used instead, the end results being about the same. The systemic use of the sulfa drugs was undoubtedly responsible for the uniformly excellent results.

Since the inception of the medical arts, over one hundred thirty methods for the treatment of burns have been introduced, and unfortunately at the present time there is not universal agreement as to the best method. The open method of treatment is now most extensively used in the Navy. It involves the following salient features: four grams of sulfadiazine are given by mouth as an initial dose, and one gram is given every six hours thereafter at the discretion of the medical officer. One gram of sodium bicarbonate should be administered with each gram of sulfadiazine. Blisters should not be opened or dead skin removed or the wound washed unless there has been gross dirt or fecal contamination, in which case cleaning and removal of skin tags should be left to the discretion of the medical officer. The use of escharotic agents, such as tannic acid or the triple dyes, are only mentioned to condemn them. Boric acid is not recommended in the first-aid treatment of burns, but rather the use of an oily, non-adherent dressing, such as petrolatum, is advised. Physiological saline solution has been used with excellent results in the treatment of burns involving the face, hands, feet, genitalia, and perineum. The use of detergents for the removal of fuel oil, grease, and dirt from wounds is seldom necessary. Shock is combatted by the administration of blood plasma (1,000 to 2,000 cc. daily, as indicated) and heat. One-half grain of morphine is given for the relief of pain unless there are complications involving a chest injury, in which case the dose is reduced. Measures are taken to prevent toxemia and anuria by assurance of an adequate fluid intake. The use of 5 per cent glucose solution intravenously is preferred. It is necessary in severe cases of burns to maintain an alkaline urine since increased blood cell fragility and hemoglobinuria may produce obstructive kidney casts and cause anuria. The casts are soluble in an alkaline urine. When definite treatment of burns is given under sterile technique, firm pressure bandages are applied to the burned area and are not removed for ten days unless there is evidence of infection.

In the field where supplies are limited and the medical department must necessarily work under conditions which would not be described exactly as sterile technique, it is often impossible to treat burns, as well as other injuries, under ideal conditions. The sulfa drugs then play a very important role. In the field our main objective in the treatment of burns is to combat shock, infection, and pain, and to prevent contractural deformities of the extremities and face. This objective may most effectively be reached by dressing gauze of sterile 5 per cent sulfathiazole soaked in petrolatum. The patients are given one gram of sulfathiazole by mouth four times daily for a period of three to six days, depending on the tolerance of the patient. Sulfanilamide is not given orally because it is absorbed more rapidly. It is preferable to use sulfadiazine perorally if it is available. Sufficient fluids are given to insure a urinary output of 2,000 cc. daily. Early motion is encouraged. Dressings should be changed when possible every forty-eight to seventy-eight hours and debridement done as is necessary.

A survey of the casualties at Pearl Harbor may be summarized as follows: The majority of compound fractures involved the tibia or fibula, or both. Treatment consisted of debridement, reduction of the fracture, packing the wound with crystalline sulfanilamide, and covering it with vaseline gauze. A plaster cast was then applied. Finally, an x-ray of the fracture was made and the position of the fragments outlined with indelible pencil on the cast. The latter step was for the purpose of providing information to medical personnel following the evacuation of the patient. Sulfanilamide or sulfathiazole was administered orally to the patient for a period of from four to ten days

after he had received his injury. This treatment of fractures was notable for its prevention of infection, retention of the bones in their proper juxtaposition, and for the simplification of evacuation. Compound fractures of the upper extremity, treated by the closed plaster method, remained in good position except for an occasional fracture of the humerus, which required extension. Fixation by means of the Roger Anderson or the Stader method has resulted in early ambulant patients and more rapid healing.

Compound injuries involving the knee joint proved to be very susceptible to infection, sometimes causing necrosis of the patella. When a joint is open and infection has taken place, efficient, dependent drainage should be obtained immediately. During the present war it is not always possible to operate on all patients having soft part injuries within the "golden period" of therapy, that is, within the first six hours after injury. However, when the number of casualties is so large as to prevent early operation of all of them, the six-hour period has definitely been extended by means of crystalline sulfanilamide packed into the wound. Sulfanilamide is dusted or sprayed into the wound at each dressing.

The use of sulfa drugs has produced excellent results in amputations. Unquestionably, these excellent results have been due to the liberal use of the sulfa drugs, locally and systemically, and not to open drainage alone. The protracted suppuration of amputations seen during the last war has been eliminated.

It has been observed that even though large amounts of various sulfonamides have been used, locally and orally, in the treatment of all types of wounds, the number of toxic reactions has been very small. In the treatment of over 4,000 casualties in the Army, Navy, and Marine Corps aboard a hospital ship, only seven patients died, a mortality rate of 0.18 per cent. The excellent results in the treatment of all types of wounds were attributed to mechanical cleaning, the local and systemic use of sulfonamides, pressure dressings, and immobilization. The most frequent type of wound seen was that caused by foreign bodies in the tissue. Some patients had literally hundreds scattered throughout the entire body. These were removed when they produced pain by pressing upon vital structures. Micro-sulfathiazole was sprayed into the wound after the fragments were removed, and pressure dressings were applied.

The parts of the body most frequently injured are the head, neck, chest, and upper extremities. Chest wounds as a rule are treated conservatively, tapping being done in cases of hemopneumothorax and hemothorax only for the relief of respiratory embarrassment and for diagnostic purposes when infection is suspected. The sulfa drugs are used locally and systemically when indicated.

All lacerations of the scalp associated with fractures of the skull should be shaved immediately and washed thoroughly with soap and water. Bleeding should be controlled, the wound filled with sulfanilamide powder, and pressure bandages applied. The use of sulfanilamide may postpone an operation for twenty-four hours. It has been observed that irritative symptoms, characterized by Jacksonian seizures, have followed the local use of sulfathiazole and sulfadiazine in wounds of the brain. Local, avertin, and sodium pentothal anaesthesia may be used. Codeine is employed for the relief of pain, morphine being contraindicated.

Intra-abdominal wounds with perforation of the viscera demand the institution of the following shock therapy: (1) administration of morphine; (2) application of heat; (3) injection, intravenously, of blood plasma; and (4) administration of stimulants—coramine, adrenalin, et cetera. The sulfa drugs are used locally and systemically as indicated.

From our experience it has been demonstrated by clinical application in the treatment of battle wounds that sulfanilamide is the drug of choice for topical application. Sulfadiazine is the drug of choice to be administered systemically since it is less toxic than the other sulfa compounds and is effective against coli bacilli, staphylococci, hemolytic streptococci, and the aerogen group. A concentration in the blood of 5 to 10 mg. per 100 cc. should be maintained.

Penicillin is now being used in certain designated naval hospitals for the treatment of infection which has proved to be sulfa resistant.

I do not wish to convey the idea that the sulfa drugs in any way can be substituted for good surgical judgment and technique. My point is that they are a valuable adjunct which unquestionably have contributed greatly in reducing our mortality rate from resultant battle casualties.

The problem of early first-aid treatment to casualties occurring in combat has largely been eliminated by the intensive instruction in life-saving measures, which is a part of early recruit training and which continues to follow the sailor, marine, or soldier throughout his military career. Each man is supplied first-aid equipment, consisting of sulfanilamide powder, sulfadiazine tablets, and compressed sterile dressings. The men know how to control hemorrhage, use the sulfa drugs and apply dressings—measures so necessary in the prevention of infection and in the saving of life.

Our available statistics at the present time show for the Navy an extremely low mortality rate of slightly over 2 per cent, which takes into consideration all wounds and complications. Although complete statistics are not available for the Army, the data at hand shows only a slightly higher mortality rate. The low mortality rate for the men in our armed forces may be attributed to early treatment, early evacuation by land, sea and air to base hospitals, and to the excellent treatment rendered by the medical officers and their assistants, both ashore and afloat. It is indeed a tribute to the medical profession of our country and a record of which we can be justly proud.

WHY THE MEDICAL DEPARTMENT GETS THE JOB DONE*

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On his trip to North Africa, the Surgeon General was told by General Eisenhower that of all the services in that area the Medical Department was outstanding in manner of performance. This statement has been repeated thousands of times by both commissioned and enlisted personnel returning from all theaters, and I was recently told by Lieutenant Colonel Loren L. Gmeiner, battalion commander of one of the units at Buna, while a patient at Billings, that the greatest morale factor in the Army was the present knowledge of all men that superior medical care was available, usually in a matter of minutes.

Recently, while paying a visit to Billings, the Surgeon General modestly remarked that individual effort, in his opinion, surpassed all organized plans and operations insofar as medical activity is concerned. Let us examine this observation for a moment. While it is my personal belief that this statement is literally true, one can not overlook the tremendous program which has evolved collectively.

A few indications of how the individual has accomplished our common purpose are at once evident.

The idea that the doctor has an "iodine and mark him duty" attitude, the description of the Army doctor as "rough," as one who, if you please, is absolutely devoid of all sympathy toward the patient, is conspicuously absent. The soldier respects the medical officer as a doctor with eminent qualifications. He is happy to be placed in his hands because he has full knowledge that his own home town doctor, in whom he has absolute confidence, is rendering the same service to one of his buddies.

How may we account for this medico-military, doctor-patient relationship?

We are all acquainted with the improved methods of teaching during the past two decades, and to say that the physician of the era since World War I is not better prepared to meet all problems would be to admit that medical education has not progressed. This we know is not true. But it is not the purpose of this discussion to detail our educational system. If the graduate of 1950 is no better prepared than the one of 1940, we have all failed in that job. Suffice it to say that all doctors are good nowadays, some are just better than others.

The important contribution of this improved background, however, is the maintenance of a bedside manner, to use a frazzled phrase, while treating large groups, as one would prescribe for his private patient. The cultivation of confidence, so necessary to successful treatment, particularly in the Army, is reflected in many ways by the soldier. One of the most notable of these is an almost total absence of the "hero complex" of those returned from the front lines. The soldier-patient of today isn't looking for personal praise. He has done a job which he thought it was his duty to do, and the feeling that he will be restored to health by ever-present medical assistance is uppermost in his mind. After that he wants to be returned to duty if at all able.

To further illustrate the position of the individual medical man, let us investigate the transposition of a large group from a civilian to a military existence, such as was begun early in 1942 and will be a continuing process for the duration and perhaps thereafter. This has been a gigantic task and one magnificently accomplished, but all the more remarkable because of the adjustments which have been attained, with rare exceptions, by medical officers who were so recently "just doctors."

Early in 1942, the Medical Department Replacement Pool was activated at Billings. The purpose of this pool was and is to receive and indoctrinate those who were heretofore unacquainted with things military. It has been my good fortune to supervise this group and to direct its training. Although I have had the advantage of three years prior military experience before reporting for this tour, I am thankful that a sympathetic understanding has not been replaced by a cynical callus, too frequently seen in those who are constantly near the scene of action.

Many of those reporting for duty were so frustrated by the civilian-military transition that a tremor and stuttering syndrome came to be a part of the suave poise we so frequently credit to the physician. To observe the sudden acclimation, once the insignia are adjusted, has been a revelation. It can be said without fear of contradiction that no individual meets military specifications with the alacrity of the doctor. The determination to "make good" in the Army, even though a military career is not contemplated, and to be of utmost assistance in helping to get this thing over with, is the profound purpose which no one can deny.

Now that we recognize the efforts of the individual, the doctor who just left home a short while ago, what about the integration? The plans and operation?

It is a matter of common knowledge that the Medical Department of the regular establishment has never been overburdened, either with funds or personnel. In that respect we are all cognizant of our military deficiencies prior to December 7, 1941. Although laboring under this handicap, the tre-

* Any opinions expressed herein are those of the writer and do not constitute an endorsement by The War Department.

mendous assignment of being ready for our present situation has been discharged in a splendid manner.

When we come to the realization of the necessary medical requirements, we are forced to reflect a bit and take inventory of work already accomplished.

The astronomical needs for such items as plasma, sulfa drugs, and supplies of all types, training of enlisted personnel to supplement the constant shortage of expert personnel, the organization of such newly-designed units as the portable hospital, air evacuation, the establishment of many general hospitals, each staffed insofar as possible by diplomates of our specialty boards and serving in the same capacity as large civilian clinics to furnish definitive treatment for those evacuated to the interior—these, and many more components of the overall picture, lend a better understanding of the need for coordinative control.

As compensation for this team work, it is my considered opinion that when the story of World War II is completed American Medicine will be proud of its role, and we can point to a job well done.

THE ANESTHESIOLOGIST IN THE ARMY

MAJOR FRANK W. RATCLIFF, M.C.*
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The scope of this rather brief paper is to give our Hoosier physicians a general idea of the duties and opportunities of an anesthesiologist in the present-day Army station hospital.

Several years ago Army officials recognized that the administration of anesthesia had developed into a science and medical specialty, and that military surgery would be enhanced by a Department of Anesthesia directed by a medical officer. Therefore, a special section[1] was created in the organization of the Surgical Service of an Army station hospital, and was designated the Anesthesia and Operating Room Section. The anesthesiologist is assigned to this subdivision and enjoys the title of Chief of Section.

The chief of the Anesthesia and Operating Room Section is directly responsible to the chief of the Surgical Service and is in charge of the operating pavilion, the personnel assigned thereto, and the property therein. His most important duties are stated specifically in Hospital Regulations,[2] and his many other functions have been itemized most completely in a recent article by Major Stevens J. Martin.[3]

Briefly, the primary task of this officer is to establish and maintain a well-regulated, smooth-functioning operating pavilion. Surgical instruments, equipment and supplies are requisitioned from the medical supply officer by the chief of Section and are charged to him. It is his responsibility to see that this equipment is in good condition when it is received; that it is maintained ready for use at all times; that it is used properly; and that it is returned to its assigned place. It is required that he take a monthly inventory to account for all property in the surgical pavilion.

The chief of Section is responsible for the proper preparation, sterilization, and storage of surgical dressings, equipment, and supplies sufficient to meet all demands of the operating pavilion, surgical dressing room, and all surgical and medical wards. This is a tremendous job, of a highly technical nature, and usually is detailed to a trained nurse.

The Section chief is in charge of the personnel assigned to the operating pavilion and must see that they learn their duties and perform them properly. This small complement of nurses and enlisted men, in turn, assist the chief in the training of much larger groups of nurses and enlisted men. This officer also must arrange a rotating schedule of duty hours for the regular personnel so that the surgical pavilion is available twenty-four hours a day for any emergency.

The military anesthetist prepares or assists the chief of the Surgical Service in the preparation of the daily schedule of operations to be performed in the operating pavilion. As in civilian hospitals, some of the operating rooms are set up to be used for definite types of operations, and in addition certain days of the week are assigned to the surgeons of each section as their regular operating days. Emergency cases, of course, are done on any day and at any hour. This arrangement, obviously, is to aid a small operating room staff to function most efficiently.

In the operating rooms the anesthesiologist has ample opportunity to pursue the vocation of his choice. Except for strictly local procedures, he administers or supervises the administration of all anesthesia on the Surgical Service. Although most of his patients are healthy young adults, many problems arise to tax his ingenuity. With very few exceptions he has as large a choice of anesthetic agents and techniques as are available in civilian hospitals. His qualifications as a teacher are not overlooked, for there always are medical officers and nurses to be instructed in this art and also in the pre- and post-anesthetic care of patients.

In order to more or less centralize the responsibility for the post-anesthetic care of patients, the

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* Station Hospital, New Orleans, Louisiana.

[1] Walson, Charles M.: Station Hospital Organization, *Army Medical Bulletin*, **54**, (October) 1940.

[2] Hospital Regulations, Station Hospital, New Orleans, Louisiana, 1942.

[3] Martin, Stevens J.: The Present Role of the Anesthesiologist in the Army, *J.A.M.A.*, (November 14) 1942.

chief of the Anesthesia Section is in charge of the oxygen therapy apparatus for the Surgical Service, and of fluid therapy for the entire hospital. It is his duty to administer or supervise the administration of oxygen when needed, and to give whole blood transfusions and plasma and commercially-prepared isotonic sodium chloride infusions.

Incidentally, liquid plasma intravenous infusions have been conclusively demonstrated to be of tremendous value in combating shock from any cause.

Quite frequently the anesthetist also is in charge of the post-operative recovery ward, where he has an excellent opportunity to follow his cases and to observe the reactions of patients to the combined anesthetic and surgical procedures. It is in this ward that one continuously is impressed with the great advantages of modern spinal anesthesia. Patients operated upon under this type of anesthesia return to the ward awake and in good condition. When the surgical condition permits, the patient immediately is able to take fluids freely and is able to care for himself in many ways, thereby reducing to a minimum the required nursing care per patient. And where nurses and ward attendants are at a premium, this is no small factor.

The anesthetist, being a member of the surgical staff, takes his turn as Surgical Officer of the Day. During this twenty-four-hour tour of duty, this officer must inspect the hospital messes, the surgical wards, and all clinics and buildings of the Surgical Service. At this time he is the direct representative of the Commanding Officer of the hospital and must conduct himself accordingly.

Since the military anesthetist also is an Army officer, his spare time is filled up with "paper work" —daily, weekly, monthly and semi-annual reports— and with service on various committees and boards.

SUMMARY

The duties of the military anesthesiologist are diversified and interesting. This officer has ample opportunity to further develop himself in the field of his choice, and can prove that his services are invaluable and indispensable in the modern surgical unit.

RESCUED AVIATION PERSONNEL IN THE SOUTH PACIFIC

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From the daily news reports of the war in the Pacific we are now completely accustomed to the comment, "The pilot was saved." The South Pacific area, with the wide expanse of ocean separating numerous islands, is an active combat zone for our aviation forces. Here any forced landing is apt to be a water landing.

Forced water landings or parachute descents may be necessitated not only as results of combat, but as well from such operational causes as depletion of gasoline and mechanical failures. In the South Pacific unfavorable weather is an added hazard. Here it has been said that there are two seasons, the wet and the dry. In the wet season it rains constantly, and in the dry season it rains daily. Such conditions can only render difficult the location of home bases.

My present duty assignment has provided direct contact with aviation personnel miraculously saved from almost certain death. All of this series, except one, came down into the sea and were later rescued either directly therefrom or from islands which they reached by their own efforts.

A typical case history of any such casualty usually embraces most of the following facts. The aviator faced with the urgent necessity of abandoning his airplane has one of two methods of descent: he may "bail out" in his parachute, or he may make a water landing. The latter gives better opportunity for the utilization of emergency equipment and rations carried in the airplane. Aided by his lifejacket he swims in the sea and inflates his rubber lifeboat. If in sight of land he may count on hours of toil in attaining this objective as winds, tides and adverse currents seem to nullify his efforts. With certainty he must undergo the heat of a tropical sun and the constant spray of salt water breaking over the low bow of his fragile craft. He must carefully ration his food supply, for it is only by the chance catch of a fish or water fowl that he is able to augment these meager supplies. For additional water, rainfall is his only possible source.

If fortunate enough to attain shore, he is assured of only the most primitive existence. The tropical jungle is both kind and unkind. It provides coconuts, bananas and papayas for food, but as well there is coral to cut his feet, thorns to scratch his exposed skin, and mosquitoes, most certainly carriers of malaria.

Good fortune may present the aid of friendly natives who, from all our reports, do their utmost to assist and even transport this their new ally to some point where rescue seems probable.

When returned by the rescue plane, our typical patient is sunburned, has lost weight, gives some evidence of malnutrition, often has edema of feet and ankles from immersion in sea water, and any wounds are usually infected. If he has been on shore the cuts of coral and scratches from thorns give added discomfort. However, our records show that all such casualties recover rapidly. They are

naturally exuberant in spirit from the thrill of rescue. Their morale is of the highest and their early question is, "When can I rejoin my unit?"

Our present experience permits a partial report on twenty-six such patients. Of these, fourteen were Army personnel, six were in the Marine Corps, and six were in the Navy. Thirteen were rescued within twenty-four hours, thus speaking well for the vigilance of Navy patrol aircraft. The longest interval between forced landing and rescue was seventy-four days. It is of interest to note that this pilot was aided by friendly natives just as he was about to succumb. He was given food, and when able was transported by native canoe for a distance of seventy miles to a point from which rescue was feasible. In one instance the time elapsing between landing and rescue was twenty-one days, one was sixteen days, two were fifteen days, three were ten days, and all others were five days or less. Of our twenty-six patients none showed any evidence of burns. In fact, in this entire group there was but one instance in which a fire hazard was present, and here the pilot escaped by his quick use of the parachute.

INJURIES

Of the twenty-six patients, nineteen received injuries which should be classified as minor. There were sprains of various joints, none of any marked degree, lacerations, ulcers secondary to coral cuts, and contusions of various areas. All such injuries responded quickly to rest and appropriate therapy.

Seven patients received more serious injuries, necessitating either special treatment at our activity or in more distant base hospitals.

These injuries were as follows:

- Fracture of maxilla.
- Colles' fracture.
- Lacerations (deep and infected).
- Fracture of clavicle.
- Fracture of tibia and fibula with posterior dislocation at the ankle joint.
- Multiple wounds from shell fragments.
- Fracture of nose.

TREATMENT

Rest and full diet brought an early response in the general condition of all these patients. Their diet was supplemented with the multivitamin capsules by reason of the obvious pre-existing deficiency in these factors.

The infected wounds were treated by various methods, such as hot saturated solution of boric acid dressings, hot magnesium sulfate dressings, azochloramid (1:3300) wet dressings and sulfanilamide powder. From our experience with such infected wounds it is impossible to determine any one method of particular efficacy.

Wounds about the face were sutured unless frankly infected. In other areas for the greater part they were left open to heal by granulation.

All fractures of the extremities were reduced and immobilized in plaster of paris splints or casts. In no instance of this series was open reduction attempted. The patient with a fracture of the maxilla, as well as the patient with a fracture of the clavicle, were transferred to base hospitals for further treatment.

As examples of the varied conditions encountered, the following case histories are summarized:

(1) P.P.P., Second Lieut., U.S.M.C.

During action against the enemy the cockpit of this pilot's airplane was hit by an explosive shell, thus forcing him to "bail out." For twenty-four hours he floated about in his rubber lifeboat until rescued by patrol air craft.

Physical examination at our hospital revealed multiple small wounds of the occiput and the lower extremities. Inasmuch as the power of dorsiflexing the left foot had been lost, it was thought that wounds in the region of the left knee had special significance. No area of skin anesthesia over the left leg or foot could be demonstrated. The wound of the occiput was quite superficial.

X-ray examination revealed multiple shell fragments in the vicinity of the left knee, the largest being 8 mm. x 3 mm., and two others but slightly smaller. In the proximal end of the left third metatarsal was an imbedded small shell fragment.

Under sodium pentothal anesthesia the wounds were debrided, dusted with sulfanilamide powder and dressed. In this process the larger shell fragments were removed. Two days later under local procaine anesthesia the fragment was removed from the metatarsal bone.

A second x-ray examination showed several sliver-like fragments remaining in the left popliteal space. It was considered probable that such fragments had injured to some degree the lateral popliteal nerve. However, due to lack of demonstrable anesthesia some doubt existed as to this diagnosis.

In view of the aforementioned findings, this patient was evacuated to a distant base hospital for further observation and treatment.

(2) E.B.W., First Lieut., U.S.A.

During combat with the Japanese this pilot's fighter plane was set on fire by an incendiary bullet. In jumping the pilot struck his right cheek against some portion of the airplane structure. His parachute served him well until becoming entangled in a tree top. After extricating himself from this position, he fell about twenty feet and in such a position as to fracture his left wrist. Four days later he was rescued by patrol aircraft.

Physical examination showed a sub-conjunctival hemorrhage of the right eye, an obvious depression deformity of the right maxilla in the infra-orbital area, a contusion of the chest wall, and a typical Colles' fracture of the left wrist.

An x-ray examination of the face showed the fracture of the right maxilla to extend into the orbital floor. Of the left wrist there was posterior displacement and moderate comminution of the distal fragment.

Under sodium pentothal anesthesia the Colles' fracture was reduced and immobilized in plaster of paris splints. The following day the patient was evacuated to a base hospital for treatment of the facial injury.

(3) J.R.S., Ensign, U.S.N.

On returning from a bombing mission over an enemy base, this pilot ran into a wide front of bad weather. The gasoline supply being depleted, he was forced to make a water landing. In this attempt he was thrown forward against the instrument board and sustained injury to his left shoulder, his face and to his right arm. As his airplane quickly sank, he was left entirely without emergency supplies. Aided only by his lifejacket, only one side of which would inflate, he swam approximately twenty-four hours before reaching an unknown shore. For the next two weeks he traveled, at times inland and at times along the shore, in an effort to find some site of habitation. Eventually he was rewarded by contacting a village of friendly natives who guided him to the site of rescue.

Examination at our hospital showed obvious loss of weight and strength. At the left angle of the mouth was an infected laceration one inch long. On the anterior surface of his right arm near the elbow, was an infected laceration approximately three inches long. It was this injury which to him was the greatest source of discomfort. The left shoulder had a marked drop from an obvious fracture of the clavicle. There was no movement at the site of fracture and the overgrowth of callus filled the supraclavicular space. On the lower extremities were numerous small infected lacerations and on the plantar surfaces were several painful infected ulcers. These latter injuries were resultant of his long walk over coral rocks.

An x-ray examination of the left shoulder showed a fracture of the middle third of the clavicle, with fragments overriding about one inch. In the surrounding callus beginning areas of calcification were apparent.

The facial laceration was treated with azochloramid packs, and on diminution of the infection the wound's edges were approximated with adhesive tape. Suturing was inadvisable because of the inflammation present. The remaining lacerations were treated with hot boric acid dressings and left open to heal by granulation.

This patient was evacuated to a base hospital for probable open reduction of the fractured clavicle.

(4) G.H.S., Lieut. (jg), U.S.N.

While on a routine flight this pilot encountered a severe storm. Attempts to ride out and circumvent the bad weather resulted in depletion of gasoline and a forced water landing. With deliberate forethought he removed all emergency supplies from his airplane. By his description it would seem he himself may have provided some few things extra.

For a full three weeks he was adrift, never in sight of land or possible rescue surface craft. His parachute served to protect him from the tropical sun and as well to catch rainwater to reinforce his ever-dwindling supply. A lucky catch of fish and a water fowl, eaten raw, bolstered his food supply. On three occasions he drank sea water after greasing his mouth and lips with the fat of the captured bird. He reported no ill effects from this questionable procedure. On three occasions he resorted to hypodermic injections of morphine, the contents of one syrette (½) grain being taken each time. His only explanation of this medication was that he sought relief from the constant slapping of his face by spray and waves. From his medical kit he retrieved tannic acid jelly to treat his sunburn.

At time of rescue this man was in an obvious state of exhaustion and weight loss. He was sunburned, but his precautionary measures had been quite effective. His temperature was 102.2 degrees, and his pulse was 100.

After three days of rest and supplemented diet, he was strong enough to walk about without apparent ill effect. He was soon thereafter transferred to his squadron surgeon for further observation prior to return to duty status.

COMMENT

An attempt has been made to relate in brief form a few of the stories and the physical findings of our courageous aviators who go out over the wide seas of the South Pacific, are apparently lost, and finally rescued from almost certain death. It is not to be inferred that more serious injuries do not occur, for certainly there are those to whom the sea must give quick solace for mortal wounds.

To be in contact with these young fighters is an appreciated privilege. Their high morale, their exuberant spirits, their tenacity to life, and their ingenious adaptations to almost unbelievable hazards gives one a new appreciation of young American manhood. Seeing them and knowing them gives the answer as to why they do come back.

(The opinions or assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.)

ABSTRACT: CONGRESS ON MEDICAL EDUCATION AND LICENSURE MEETS FEBRUARY 14

The Annual Congress on Medical Education and Licensure, under the auspices of the American Medical Association's Council on Medical Education and Hospitals, will be held Feb. 14 and 15, 1944 in the Palmer House, Chicago, *The Journal* of the Association announces in its November 20 issue. The program for the first day will be under the auspices of the Council and for the second day under the auspices of the Federation of State Medical Boards.

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DECEMBER, 1943

Editorials

A Merry Christmas
to all at home and abroad.

MEDICAL LEADERSHIP

Never before in our memory has leadership in the field of medicine been so important as today. There have been moments when such leadership was necessary to combat something that had appeared on the medical horizon, but at this time there seems no end to the problems that confront us, and many of these have to do with the very life of our profession. Strong men are needed; men who have the vision to foresee the evil results of many of the plans proposed to hinder our progress; men who have the ability to analyze these things and bring about the proper method of overcoming them.

No longer shall we consider the election to the head of a medical organization as an honor; rather it is to be deemed as a recognition that the man so elected is the best man available for that position. In our own state organization we have had many such men who have given of their time and talents, and have accomplished a great deal. They have traveled the length and breadth of our state, meeting firsthand with the members of the profession, and in so doing they have come in close contact with the majority of our members.

The immediate future indicates that there will be a demand for further sacrifices; more time will have to be spent in the furthering of the interests of the greatest of the professions. Spoken platitudes no longer will suffice; we must have a definite program, and once that program is laid down, our leaders must see that every man in our State Association is enlisted for the duration. However, a leader can not do all these things alone. He will be the general in command; it is his job to lay the plans of battle; it is ours to carry on that battle.

We talk about the Wagner-Murray-Dingell Bill, as well as other legislative proposa's. Talking, however, will not win this or any other battle; it is action that counts. We might, however, say that talk is one of the essentials in this campaign—that sort of talk in which you indulge when discussing economic problems with your patients, and few doctors do not have such opportunities.

There is no set formula for this sort of thing. Most patients show an immediate interest in something that concerns themselves. Only the other day, in talking with a patient who is a member of a railroad labor organization, he brought up a subject concerned with his craft. He opined that too much of the present difficulties of his organization were due to meddling by those who knew little about it. He further was of the opinion that the old arbitration method would have done wonders in this case. There was the opening, and we took advantage of it—pointed out that we, too, were in somewhat of a dither about this meddling business, and at once brought up the Wagner-Murray-Dingell Bill.

We immediately had an interested listener. He asked, "Just how will this law affect me?" In a very few moments he had a rather clear understanding of what it was all about and disagreed with certain labor groups who are quoted as being favorable to the law. Later in the day he called to ask further information, indicating that he was more than casually interested, declaring that he even then was talking to members of his craft and wanted to be certain of his facts.

As we have said before, we believe that the best means of fighting this iniquitous law is by a *personal* campaign among our own patients. Our medical leadership has agreed that this plan is workable and that it needs only be brought into effect.

We are familiar, of course, with the official heads of the Indiana State Medical Association. We have talked to them and have sat in sessions of the Executive Committee and the Council, know their reactions to all matters pertaining to organized medicine, and unqualifiedly aver that our affairs are in good hands. It is but a matter for

us to support these leaders; when they call for action it is our job to swing into that action.

Members of the present Congress are in closer touch with their constituents than for many decades in the past. They spent the recent congressional recess at their homes where they heard, firsthand, from the men and women whose votes elect them. More than one member of Congress has told us that they knew more of the real feeling of the home folk than ever before in all their political experience. These men are not going to vote for any legislation that is definitely opposed by a majority of the people of this country, and we can bring about just that degree of opposition.

"Something for nothing" always has had a lure that has attracted large groups of people, but if it is properly explained that free medical care is nothing but a chimerical dream—that *they* will have to foot the bill—a different attitude is noted. If a patient and his family feel disposed to express gratitude for something you have done for them, it is easy to ask, "Are you in favor of a law that regiments the physicians of this country?" You may find it necessary to explain just what is meant by regimentation, but the time required will be worth while.

So, when medical leadership calls on you for personal action, do just the thing you are asked to do. Politicians tell us that the medical profession is a mighty force *when organized;* we have the organization; we believe that we have the necessary leadership—Let's Go!

SOME OF THE AFTERMATH

It was to be expected that our state press would have some comment on some of the actions of the House of Delegates of the Indiana State Medical Association at our last meeting, since matters of more than historic importance were frankly and freely discussed, and as a result of these discussions certain resolutions were passed—unanimouly—that would more than indicate that physicians finally are "kicking against the pricks."

The *Shelbyville Democrat* devotes a long, double-leaded editorial to the subject, basing same on a resolution the Shelby County Medical Society had passed concerning what may be classed as socialized medicine. The gist of this resolution, along with those coming from many other counties, was incorporated in the report of the Reference Committee which studied all these resolutions and came out with a composite resolution that met with the approval of every delegate.

The *Democrat* lauds the Shelby County physicians for their work over the years and for the stand they took against some of the goings on in Washington.

In concluding the editorial the editor writes: "Programs set up by county authorities and county medical societies would be best. If that were impossible, for financial or other reasons, the state officials and state medical association should step in to make the necessary arrangements to take care of the particular sections of the state which need more medical attention. An all-over national statute providing for socialized medicine would be far from satisfactory, forcing the program on communities which did not need it and setting up a tremendous new drain on tax revenues."

Another angle to the question is found in a "Vox Pop" letter in the *Indianapolis News* of October 6th, in which the writer, after stating that she is definitely opposed to the Murray-Wagner-Dingell Bill, says: "I think the great number of doctors who are serving the country at this time should return to the same type of practice which they left, and the doctors remaining on the home front should see to it that they do." There, this woman puts it right up to you!

And it should not be forgotten that the men in service are thinking just that; we have seen more than one letter from men away from their homes in which they definitely say, "Do not sell us down the river."

The *Muncie Star*, September thirtieth, comes out with a strong editorial, also double-leaded, very much in favor of the program presented by the House of Delegates at our September meeting. The writer says, "The spirit of individual initiative and enterprise is one of the richest heritages of this country. We cannot afford to sell that birthright for a mess of federal pottage. The doctors are entitled to whole-hearted support in an effort to keep their profession free from the blighting influence of bureaucracy with all that it implies in the way of waste, inefficiency and politics."

The *Crown Point Register* terms the Wagner-Murray-Dingell Bill as "Medicated Political Candy." Several other state papers have commented on the matter in a similar vein; in fact, through all our clipping service we have not seen one article favoring such a program.

As we have said elsewhere, it all boils down to this: thinking people who have read the Wagner-Murray-Dingell Bill are of the same opinion—that it is more political than expedient; that there is no need for such legislation, and that if the law is enacted it will bring about medical chaos.

The problem of what the medical profession should do about it is easy of solution; the answer is very apparent. It is, therefore, the personal problem of every physician.

THE ADDICT MENACE

For decades past one of the problems of the medical profession has been the narcotic addict—how to handle him without running afoul of the Harrison Anti-Narcotic Act. Thanks to the publicity given the matter by our medical journals, most of the tricks of this gentry had become well known, but with the advent of the war and the resultant shortage of these drugs, plus the shutting off of many of the sources of supply of the ille-

gitimate dealers, these addicts, always ingenious, have devised new schemes for approaching the doctor—and they have been getting away with them in too many instances.

H. J. Anslinger, Commissioner of Narcotics, has sent out a letter to the medical press in which he explains many of these ruses and makes valuable suggestions to physicians in the matter. He states that one plan is for the addict to walk into the doctor's office, simulate a bad cough and explain that the only thing that will relieve the cough is "dilaudid." He wants the physician to give him a prescription for this drug. A lot of physicians are not acquainted with the drug and apparently do not know that it is a derivative of morphine, so the addict often gets the prescription.

Other ruses are clearly explained in the letter sent out by Commissioner Anslinger, from which we quote:

> "In another racket the physician is imposed on in a rather unusual manner and generally writes morphine prescriptions for quantities ranging from thirty to eighty ¼ grain tablets. The addict calls on a physician and says his wife is in the care of a nurse and enroute by train to join him; that his wife is in a very serious physical condition, necessitating the use of morphine. He says that the doctor has been highly recommended and that he wants him to take care of his wife on her arrival, place her in a hospital and perform an operation if necessary. The addict offers a retainer. He then alleges that his wife has just stopped off in a nearby city and is unable to proceed by train until a supply of morphine is obtained; that the nurse telephoned him that his wife's supply is exhausted. The physician writes a prescription for morphine, which the addict claims he will send to his wife by air mail. In some cases the doctor has been taken in by this story to the extent that he has retained a room in a hospital for a week, until he realizes that he has been victimized."

One of the older rackets seems to have been revived, that of calling on the widow of a recently deceased physician and stating they have come to take up the narcotic supplies of the late doctor. This seems to work in many instances.

The old standby, the stealing of doctors' bags, is being worked to the limit these days. In our city, in the space of a few weeks, there were some half-dozen such thefts—all while the cars were parked at the hospital. (For some reason most such thefts take place near the hospitals.)

Recently a man called us at night, at our home. He stated he was traveling through and stopped off here because an ailment was getting the best of him, that he would have to have an injection of a grain of morphine at once. He was very clever at answering questions and, save for a few statements, his story was good. However, he did not get the shot.

Prescription blanks with the narcotic number printed thereon should not be left lying about on one's desk, for Commissioner Anslinger states that pharmacists are swamped with forged prescriptions. These addicts pick up a pad here and there and try to use them. Government officials state that they are successful in too many instances.

Members of the profession should, of course, be on their guard. Bags left in the car while making hospital calls afford opportunity for many thefts, hence, this should not be done. By a bit of unusual precaution many addicts' portals of entry would be closed.

THE TOMATO INDUSTRY

In the late fall, for several years past, THE JOURNAL has carried more or less comment on the subject of tomatoes. We have watched this industry grow in Indiana for a good many years—and how it has grown! For the past two or three years Indiana has led the nation, not only in the quantity of tomatoes produced but in the matter of quality as well. The words "Indiana tomatoes" are not placed on the can labels without a good reason; they are placed there because the consuming populace long ago discovered that tomatoes of the Hoosier brand were tops.

Most of us have seen the canning plants here and there about the state, principally in central and southern Indiana, but few of us have taken the trouble to go through one of these plants. The State Board of Health *Bulletin*, for September, carried a factual article on the subject of the processing of tomatoes, which explained every step from the time the tomatoes are picked on the farm until they come to the grocer for distribution. And there is one word that crops up amazingly often in that well-written article, "CLEANLINESS." Indiana-packed tomatoes are just that —they are clean, as well as wholesome.

The tomato grower takes his crop to the canning factory in baskets or hampers. They are not unceremoniously dumped into a wagon box or gravel bed, there to be crushed or bruised in transit. The growing of good tomatoes is a ritual; their transportation to the point of processing is a ritual; their handling at the plant is a ritual—and it might be said that the eating of Hoosier-canned tomatoes is a ritual.

The modern canning plant teems with inspectors. The plant, of course, has official inspectors for this and that purpose, chiefly to see that labor costs are not too high due to inefficiency in the handling of the product, but the State Board of Health inspectors are the most important personages.

The first job is to see that the tomatoes are sound and ripe, and that they are properly cleansed before they reach the hands of the women who peel and pack them into the cans, for only the best is good enough for the label "Indiana

Tomatoes, First Quality." So, before the tomatoes reach these hands, they are washed several times and then scalded, ready for the peelers.

Samples are generously taken throughout the whole process of manufacture, these sent to the State Food Laboratory. It would seem that nothing is overlooked to assure the purchaser that he is getting the finest quality obtainable.

If you open a can of tomatoes and find that some have green spots, if the contents are soft and mushy and devoid of the taste you expect to find, then you had better look at the label. It will not say, "Indiana Tomatoes, First Quality."

Doctor John N. Hurty used to write—and talk—a lot about canning factories. He spent a lot of time visting these institutions, trying to get them to clean up and keep clean. He fought a long fight, and it was this continued fighting that brought about present-day cleanliness in these places.

We recall an article in which he spoke of the processing of tomato ketchup. He described every step of the process; the tomato peeling, the rotten and the green tomatoes were cast to one side and were later taken to the ketchup department for final disposal. Those who read the article eschewed tomato ketchup for a long time, except for the home-canned variety.

Sanitary conditions were unheard of in many plants; some even failed to supply facilities for the washing of the hands of the workers. The main thing was to get the job done in the shortest possible time and to get out the largest tonnage possible. Today, while the output is greater than ever, the employes have clean, sanitary wash rooms; their aprons are freshly laundered, and all that is necessary for a sanitary, healthful product is provided. That is why Indiana tomatoes are good!

PUBLICITY WILL NOT DOWN

Regardless of what is said concerning publicity and what regulations may be adopted by the local medical society groups, the problem of medical publicity remains a "Banquo's Ghost."

The matter was again brought to our mind in a letter recently received from one of our members, in which he says, "If it is not inconsistent with your editorial policies, I would like to see a discussion on Medical Ethics, with reference to physicians having their names appear after birth announcements, operations, treatment of accident cases, et cetera, in the daily papers. To my mind, the above is a rotten practice, and one should be able to curb it."

Bless you, doctor, nothing needs be done about curbing this thing. If you mean that steps should be taken to have the papers stop mentioning the names of physicians in connection with such news items, the only place a curb is indicated—and too often necessary—is on the doctor himself. In practically every case in which names are used in such matter, the use of that name is *inspired*. Usually the paper gets the item directly from the physician, who astutely suggests, "You might use my name."

Its an old, old story, this matter of personal advertising. We have had plenty of experience with it, since for a quarter of a century we served as an officer of our local medical society, and in that time we made dozens of efforts to control the problem. We cajoled and we threatened; we managed to have entire meetings devoted to "Medical Ethics," at which this matter was thoroughly discussed. These meetings concluded only after we unanimously decided that we all would "go and sin no more." There would be a lull; then the disease would break out in a new locality and soon would become epidemic in form. Finally, we gave up the idea of being a modern Moses and devoted our activities to personal discussions with the worst offenders.

Our best weapon was the scrap book, in which all such encomiums were pasted. When this book was shown to an offender and he noted that he occupied a great proportion of the space, the effect often was noticed immediately—at least for a time he did not contact the papers so often.

With the modernization of our local society, the scrap book again was brought into use. Some had an occasional mention therein, others had several pages of personal notes, and one or two had complete medical biographies, covering dozens of pages. All this slowed down such notices, but their appearance continued. Hence, our executive secretary had a conference with the newspaper folk, and an agreement was reached. The secretary was to furnish the daily papers with all stories relating to the profession, such as he deemed proper for publication. Unusual medical and surgical cases were to be written up by the secretary for these papers.

The plan has worked out to the satisfaction of the press and the local medical society. Newspaper reporters, when they trace down what they believe to be a good story, contact the secretary before publishing the article. In many instances the secretary explains that the item should not be used, and it is not used. There is but one chiseler left, and his activity along these lines is markedly curbed, although he manages occasionally to get a minor item in his local paper.

We regret, doctor, that we are unable to advise you how to manage the problem as it applies to your local community, but your county society can materially aid in stamping out such unethical practices *if they want them stamped out*. However, if the majority of your members are not interested in having the practice curbed, there is little that can be done about it. As we now view it, it is a local problem.

Editorial Notes

During the past few months we have met up with several agents of the Federal Bureau of Investigation—not that we have run afoul of the Federal law, but because these men want to know what is going on. Without exception we have been deeply impressed with these operatives; they are of the quiet sort, approach their subject without unnecessary jockeying and make clear just what information they seek. Invariably they are well-educated men, and a chat with them gives a very favorable impression of that branch of the Federal Government.

Ninety-three young married men, average age about thirty, left one of our cities recently for an induction center, there to be examined as to their fitness for service. *Forty-nine* of them were rejected for various physical or mental reasons. This is an indictment—not of the medical profession but of the "American way of living." Over half of such an age group was found unfit for Army service! We dare say that very few of these young men had indulged in an annual health examination.

Don't ignore the advice of the "food powers" in the matter of laying in a goodly store of potatoes, one of the staples of American diet. They are more plentiful now than for many years past, and the usual storage facilities are pretty well used up. If you have a corner in your basement that can be kept cool, say under fifty degrees, put away enough of this food to last you for the whole winter. Remember last May, when potatoes were not to be had even though several carloads were dumped in the garbage heap down Vincennes-way?

The battle between butter and oleomargarine carries on apace, with each side hurling their most destructive arguments at one another. Now it has reached the Congress, and is attracting no little attention. The butter advocates claim that the "cotton seed oil South" is back of the bill, since this product enters largely into the production of what we now generally call "margarine." While we admit that margarine lacks the actual butter taste, we are inclined to agree that it has a definite place in our dietary list, especially since butter has reached the opulent position of demanding sixteen points per pound. Several of our culinary friends have used it in getting around the excessive cost of butter. One formula that appeals to us is the blending of a pound each of butter and margarine with a tall can of *good* condensed milk. There you have the bulk as well as the flavor.

Football addicts are in a dither; the college teams they were wont to support in other days in many instances bear little resemblance to the teams of former years because so many of our colleges have taken on a long list of trainees, both Army and Navy. We looked over a recent lineup and found that more than one-half of the members of one of the teams had played with another school only a year ago.

Ross T. McIntyre, Surgeon General of the United States Navy, says, "If an American service man is wounded today on any of the battlefields of the world, the chances are 49 to 1 that he will recover, thanks to the miracles being performed by American Army and Navy doctors and laboratory scientists.

"And, if an American Navy man contracts some disease, whether on one or another of the seven seas or any continent, the chances are more than 1,500 to 1 that he will come out fighting." *Yet we have folk in Washington who would upset all that has been done by the grandest of all the professions!*

Just what will be expected of Indiana in the matter of further enlistments of medical men is not definitely known at this itme; however, we are unofficially advised that the Procurement and Assignment Committee has been advised that several additional thousand physicians will be needed. A state news item is to the effect that while this probably is true, Indiana will not be asked to furnish any great number of men. As has been pointed out before, but few of our communities can well release many physicians without creating a dire scarcity of medical care. Probably not more than five of our counties can release more medical men. We are awaiting with unusual interest the further announcements of the Procurement Committee.

It is estimated that before the end of the current year some three thousand men will have been advised that they are victims of tuberculosis, evidence of this disease having been found at the Army induction stations. Just how this matter is to be handled has been worked out by the authorities in a manner that will meet with the approval of all concerned. The men are not immediately advised of these findings, nor does the Army enter into that phase of the picture. The findings are forwarded to the Indiana State Board of Health, together with the x-ray plates. In turn, the Board then advises the county health officer in which the rejectee lives. In that way the victim of the disease is contacted by his home physicians, thus enabling him to make his choice of medical consultant. As we have pointed out in another item, these induction center examinations are uncovering a host of unsuspected illnesses, thereby enabling the draftee to do something about it.

Indiana seems to have been very forunate in the number of cases of "polio" reported thus far in 1943, as compared to some of our surrounding states. Several of our hospitals opened infantile paralysis wards and the results of these treatments will afford much valuable information when fully compiled.

We chanced to be in Chicago on Navy Day, October twenty-seventh, and witnessed the parade of more than ten thousand Navy boys. It was a scene that probably will not be repeated in the lifetime of most of us—and a thrilling scene it was. The cream of our young Americans, chosen because of their physical and mental fitness, swinging along the streets to the martial tunes of the bands and Drum Corps. Heads up, eyes alert, they made a grand spectacle. They came from Great Lakes, from Navy Pier, from the Naval Armory, and from Glenview—they seemed to come from every place. The Coast Guard, of course, had an important spot in the parade, as did the WAVES and the SPARS.

Again we quote from Maurice Early's "The Day in Indiana," *Indianapolis Star*. He states that industrial accidents in war production plants within the state claim a total of more than fifty thousand man-days a month. The step-up in industrial accidents is unprecedented, one large factor being the urge to get things done. Another, of course, is the fact that a great percentage of employes in these plants are new to their surroundings, never before having worked in such places. Then, too, the occupational disease hazard is greatly enhanced. Before Pearl Harbor there were sixty-one known occupational diseases; now more than three hundred are listed, this increase being chiefly due to the handling of metals, chemicals and textiles. In 1942, in the State of Indiana, the Industrial Compensation Bill amounted to $2,766,000.00.

The October issue of the *North Carolina Medical Journal* directs attention to a notice on the Bulletin Board of the Medical College of the State of South Carolina, part of which reads: "All Navy V-12 students by regulations are not allowed to participate in any form of political activity or join in any movement concerning government policy." This order was signed by the captain in command. It seems that these students had held a meeting in which they unanimously voted to support the campaign of the Medical Society of South Carolina against the Wagner-Murray Dingell Bill. It might also be remembered that these same V-12 students are wards of the government, in that their medical education bills are being paid by Uncle Sam. Editor Johnson naively comments, "Those physicians who look forward to being on the government payroll might well consider what it could mean in the curtailment of one's free speech."

Railroad passenger transportation continues a problem, the difficulties becoming greater as the days go by. A passenger agent of one of our trunk lines recently remarked that soon—probably before this is in print—advance Pullman reservations would be a thing of the past, at least for the duration. He declared that there still are too many who make reservations, find that they can not use them, but fail to notify the ticket office so that others might avail themselves of the space.

Dr. J. W. Jackson, director of the Division of Communicable Diseases, Indiana State Board of Health, is bringing out some ideas concerning the etiology of "undulant fever" that are worth remembering. Heretofore most physicians have regarded undulant fever as being a milk-borne disease. Doctor Jackson describes the three types of brucella bacteria, pointing out that one or more of these affect swine. He states that handlers of hogs often become infected with the disease. In passing, it might be mentioned that undulant fever is attracting much attention in many sections of the country. Several of the recent medical journals have carried articles on this subject. Quite some time ago we predicted that sooner or later undulant fever would receive the attention it deserves; it seems that the time has come.

Much has been written about a noise abatement program. Some of our cities have gone so far as to enact ordinances seeking to control the clamor that seems to be a part of our urban life. Not much of a constructive nature has been written about the matter, however, hence it is refreshing to find a factual article on the subject. In *The Journal of the American Medical Association*, October 23rd, Drs. McCord and Goodell discussed the subject. Their article was written as a part of the report of the Association's Committee to Study Air Conditioning. It is, of course, well known that certain factory dins produce varying degrees of deafness, and that these noises seriously interfere with factory production at times. These physicians also declare that the assumption that factory workers become inured to these noises is false. Their recommendations for elimination of many of these noises include structural changes designed to prevent these noises from being transmitted to other rooms in the plant, and sound proofing. Of course, they do not overlook the modern auto horn, that instrument of the Devil himself. With the present system of shift work, when men and women leave for their places of employment at all hours of the night, their share-the-ride partners sounding their horns to announce their arrival materially adds to the din of our cities, and to the great distress of their neighbors. The writers strongly urge that a noise abatement program be made a definite part of the war effort, a suggestion with which most of us will heartily agree.

We would like to know how many Hoosier physicians experienced the difficulty in making sauerkraut that we did; not that it is such an intricate problem, merely preparing the kraut, but the after-results. We spent most of a morning slicing cabbage, salting and packing it into a large stone jar, then carefully set it under the kitchen table, there to repose for some five weeks while the fermenting process went on—later to be stored in the cold room in the cellar. Friend wife got pretty "snooty" about it after about two weeks, and the longer the jar sat in the kitchen the more she complained of the odor. However, probably due to the rationing program, we won out, and after another week we will take the delectable concoction downstairs, there to await the accumulation of enough points to buy a sizeable chunk of pork—then the feast.

An astounding thing has happened — the Indiana State Medical Association has defined the term "Public Relations!" Other than in the field of medical nomenclature the profession of medicine seldom essays a Websterian role, but in the present instance the Indiana House of Delegates has done just that. Elsewhere in THE JOURNAL, prominently displayed, you will find this definition. It would be well to cut this out and save it, since Public Relations has grown to be one of the big things of modern times. Great industries and business establishments annually spend millions in such programs, too many of them without knowing what it is all about. We do not know that our definition will be generally accepted as the sine qua non for generations to come, but as for Indiana we have a definition and from now on we will know what we are talking about!

We wonder if the American Red Cross is accorded a full meed of praise for the excellent work they are doing in the war effort. This group seeks no praise for this work, and we fear the average American citizen is not fully cognizant of the important role this organization is now playing. Most of us, of course, are familiar with the bandage-making, the sewing these groups manage to get done, along with other lesser activities, but we do not believe many are familiar with such departments as the Home Service, et cetera. The two boys in service from our home have repeatedly said, "If you need us in any emergency, do not wire or telephone us—call the Red Cross." Numerous instances have come to our attention that bears this out. A death in a family with one or more of the members in service, if reported to the local Red Cross unit, starts action immediately. Through some means they are able to get results much quicker than members of the immediate family. Later in the year, when the Annual Membership Drive comes along, we should all remember what this organization is doing and give it every support.

The Stream Pollution Control Board, rather a new organization in Indiana, has a huge task ahead of it. They have had several organization meetings and have outlined a program that, while it will require many years to bring it into complete action, ultimately will be of yeoman service to the people of the state. One of its greatest problems is the control of the pollution of Lake Michigan. For decades several Lake County cities have been dumping untreated sewage into those waters, with the end result that that section of the lake bordering on Indiana may be said to be a cesspool. Within the past two or three years several of these cities have installed sewage treatment plants, with the result that raw sewage no longer is dumped into the lake from these cities. However, one or two large communities have not yet completed such plants and the menace continues. The City of Chicago has become much concerned about it and, through the State of Illinois, is asking an injunction against Indiana cities in the matter.

Every physican should read as much as possible of the minutes of the last meeting of the House of Delegates, which appear in this issue of THE JOURNAL. The discussion of the House on such subjects as the Wagner-Murray-Dingell Bill, public relations, voluntary sickness insurance, the federally-financed program of obstetrical and pediatric care of service men's families, and many other subjects which directly affect practically every physician in the state often resulted in definitive action. Several resolutions in regard to Public Relations in general and the Wagner Bill in particular were presented. Frank, straight-talking discussion took place—no punches were pulled. The Lake County Medical Society, one of our largest and most active groups, feeling that it had a well-earned right to speak upon the subject of Public Relations because it has done an outstanding job there and the doctors in that society are proud of their accomplishments, presented a statement on that subject. Their Public Relations program isn't on paper—it's part and parcel of the everyday life of Lake County. That society fought, often against odds, for what it has obtained. A hard-fighting, hard-battling, hell-for-leather, well organized and capably-led organization of physicians who are confident in their past victories and are frankly out looking for new fields of conquest came from the "State of Lake" to the meeting with a program, and after having some parts modified, pushed it through the House of Delegates after a hard-fought session marked by able debate on all sides of the question. The Indiana group may be right or it may be wrong, but whatever discussion took place and whatever action the Indiana House of Delegates adopted comes from the "grass roots," and through all the session rang a cry that is not limited by any state boundaries — a battle cry for definite, aggressive action on the part of the State and the American Medical Associations.

should attempt to establish the most cordial relationships possible with allied professions.

7. There is no official affiliation between the American Medical Association and the National Physicians Committee. However, since it is the purpose of the National Physicians Committee to enlighten the public concerning contributions which American medicine has made and is making in behalf of the individual and the nation as a whole, it is the opinion of the Council that the medical profession may well support the activities of the National Physicians Committee and other organizations of like aims.

8. American medicine and this Council owe a responsibility to our colleagues who are making personal sacrifices to answer the call of the armed forces. Therefore the Council expresses the desire to cooperate with the Medical Committee on Postwar Planning in order to assist our colleagues in reestablishing themselves in the practice of medicine and in the preservation of the American system of medicine.

A letter from J. W. Holloway, acting secretary of the Council, contains the following request:

"The Council on Medical Service and Public Relations, in order to facilitate its activities and expedite the distribution of material, requests that each state association designate an existing committee or create a new committee to function with the Council on a state level."

The duties placed upon the Council by the House of Delegates of the A.M.A. are as follows:

(a) To make available facts, data and medical opinions with respect to timely and adequate rendition of medical care to the American people;

(b) To inform the constituent associations and component societies of proposed changes affecting medical care in the nation;

(c) To inform constituent associations and component societies regarding the activities of the Council;

(d) To investigate matters pertaining to the economic, social and similar aspects of medical care for all the people;

(e) To study and suggest means for the distribution of medical services to the public consistent with the principles adopted by the House of Delegates, and

(f) To develop and assist committees on medical service and Public Relations originating within the constituent associations and component societies of the American Medical Association.

"The Council requests, too, that you contact each component society in your state and ask it similarly to designate a committee to function in connection with the programs initiated by the Council."

A concise statement of the Council in regard to the Wagner-Murray-Dingell Bill now pending in Congress is published on page 671 of the current JOURNAL. In connection with this bill the Council suggests "that each state association stimulate a study of the bill by component societies in special meetings, if possible, so that every member may be fully informed as to what its enactment will mean to the health of the people."

The Council letter suggests further that "Each component society should be requested to initiate interest in the bill on the part of other local professional and lay groups of men and women. Programs should be arranged for such groups at which the implications of the bill can be discussed by physicians."

Patriotic Response of Indiana Graduate Nurses

The patriotic response of Indiana graduate nurses to the appeal of the Army, Navy and Air Corps for nurses to serve with the armed forces was highly commended in a recent statement by the Nurse Recruitment Committee of the Indianapolis Chapter of the American Red Cross.

In its statement, issued by Mrs. G. D. French, Committee Chairman, the committee directed attention to the fact that already this year nurse applications for duty with the armed services had exceeded the quota by more than two hundred applications, with two months of the calendar year remaining for further enlistments. The Indiana quota was approximately 450. Quotas are set by the national offices of the American Red Cross.

The statement pointed out that Indiana was one of the leading states of the union in nurse recruitment and was outstanding among northern states. The Indianapolis Chapter of the Red Cross is responsible for recruitment in about fifteen central Indiana counties.

"The graduate nurses of Indiana have made a most remarkable record in their patriotic response to the appeal for nurses to serve with the fighting forces of the country," the statement said. "Indiana nurses are now serving with distinction on nearly every one of the many fighting fronts where our men are engaged," the statement continued. "Many are with the Navy, and others are manning the flying hospitals and ambulances which are doing so much to save lives of wounded men. Many other nurses are so adjusting their programs that they will be able to join the armed services within coming months."

In its recruitment work, the committee statement related, as in the past, the recruitment service and the nurses will endeavor to adjust the constantly growing need of the armed forces for nurses to the demands and needs of the home service. Special care has been taken in the past to avoid disruption of training programs and essential hospital service in the recruitment program.

"The nurses of Indiana have responded nobly, and the record now being established in this state will go into the records as one unsurpassed anywhere," the statement said. "Like that of the medical profession, the nurse record for volunteer service is one in which every Indiana citizen will take great pride."

HOW THE NAVY CARES FOR ITS WOUNDED HEROES

LIEUTENANT COMMANDER JOHN W. FERREE
Naval Air Station
GROSSE ISLE, MICHIGAN

Here is the information requested in your letter of November tenth. The following story illustrates better than any statement of plain facts the type of medical care the men of the Navy who have been wounded receive after reaching a shore base.

"A seaman gunner on the cruiser *Vincennes*, through all her actions—Coral Sea, Midway, Gilbert and Marshall Islands' attack and the Tokyo raid, received shrapnel wounds in both thighs with severance of the sciatic nerve in the left thigh and flash burns when the good ship went down in the Kula Gulf engagement at the time of the Solomon invasion. He was picked up by the *Solace*, one of the United States' naval hospital ships, and was taken to Auckland, New Zealand, where immediate treatment was given. He was soon transferred to the United States Naval Hospital at Mare Island, San Francisco. After treatment there he was furloughed home and then returned finally to the United States Naval Hospital at Corona, California. Here reconstructive work was done with improvement sufficient to return him to limited duty during the prolonged time necessary in nerve injuries for maximum results.

"While on leave just recently, he was slightly injured in an automobile accident. The nearest Naval medical facility was contacted, an ambulance dispatched, and he was soon receiving the best medical care available in a superbly equipped and staffed naval dispensary. It is small wonder that this boy, on being discharged to resume his leave, expressed in salty terms a keen desire to be assigned to the new *Vincennes* for full active sea duty."

We are seeing more and more men who have been wounded or who have had tropical diseases returned to full or limited active duty at shore stations here in the United States after their wounds and disease have been treated at naval hospitals especially established for this purpose and for convalescent care. Inasmuch as my duties so far have not brought me in touch with the severe cases which cannot be returned to duty, I do *not know* what sort of a rehabilitation program is in operation for those who can not be returned to duty. I have seen no information on the number of permanent disabilities, the percentage of men returned to battle, or of men requiring long-term treatment. I rather imagine that this information would be regarded as confidential and could be obtained only from the Bureau of Medicine and Surgery.

While there is in general a rather wide variation in the size, personnel and facilities of naval hospitals and dispensaries, there is still a conformity as regards organization and administration. The activity is under a commanding officer who is responsible for carrying out the general policies of the Bureau of Medicine and Surgery. These are, however, quite flexible and permit the commanding officer to use those means of accomplishing these policies that are most applicable in his particular situation. Much freedom is allowed the individual naval medical officer in the performance of his clinical work; consultations are freely requested and given, and transfers to other naval medical facilities are easily arranged should any particular one not be able to give the care necessary in any individual case.

Most naval hospitals give some care to the families of enlisted men and officers, therefore one sees in these naval hospitals about the same type of cases one would see in any general hospital, even obstetrical and pediatric cases. The fact that a man is in the service does not mean that he is thereby immune to all the various ills that afflict mankind in civilian life. Rather, he suffers from these as well as those injuries and diseases peculiar to his naval service. The latter consist of combat wounds and injuries, diseases peculiar to the environment that surrounds him and those brought about by altered living conditions. It should also be remembered that personnel of the naval service is highly selected and of an age group that with all the preventive medicine practiced minimizes the occurence of many diseases. The fact that disabled or retired personnel and the immediate families of all personnel may be cared for in the naval hospitals assures a wide range of medical problems.

By and large, medical officers are assigned to services that will best use their special abilities—the x-ray man to x-ray work, the psychiatrist to psychiatry, the general surgeon to general surgery. There are, of course, many things to be done of a routine nature, such as physical examination of recruits, care of minor illnesses and injuries, sanitary inspection, et cetera, that medical officers must be assigned to. There is necessarily a considerable amount of administrative work that requires the attention of a doctor. As a consequence, some medical men are doing jobs over and above what they may have been doing in civilian life—this all to the end that the mission of the Medical Corps of the Navy, "To keep as many men at as many guns as many days as possible," may be carried out.

In addition to the strictly medical activities carried on in a naval hospital, there are the important auxiliary services, such as training of hospital corpsmen, maintaining a complete pharmacy, occupational therapy, libraries and other welfare and morale services. Don't forget the

cleaning detail—it is hard to imagine a place more immaculate than a naval hospital.

Naval medical officers are urged to take special training in specific fields, from a seven-day course on the use of orthopedic appliances to a four months' course in epidemiology and malaria control. He may request from the wide variety of courses the one he is most interested in, and with consideration for his previous background and the needs of the service his request is granted. Some of the fields covered are: Tropical Diseases, Malaria Control, Venereal Disease Control, X-ray and Radiology, Psychiatry, Aviation Medicine, Industrial Hygiene and Orthopedics.

Staff conferences and clinical demonstrations are held at regular intervals at naval hospitals, and thus is continued from civilian practice one of the finest means devised for keeping all medical men abreast of the rapidly developing advances of medical science and skill.

It should be added that the need for more medical officers, nurses and technicians is acute, and there are splendid opportunities for interesting service for young women in the WAVES. These sincere, loyal, patriotic girls are daily making great contributions to the medical services essential for our naval personnel. We need more of them.

While I feel a considerable inadequacy in handling this assignment, I hope that the above information may be helpful to you all in the series of radio programs you are arranging, and that it has not been so long delayed in reaching you that it is valueless. Believe it or not, I've been busier than H——. I have seen several cases of recurrent malaria, some with filariasis, and have heard of a lot of interesting stories on conditions in the combat areas, but have not included them above. My best wishes for a successful "series."

SERVICE WITH TROOP CARRIER COMMAND

LIEUTENANT COLONEL DUDLEY A. PFAFF
Medical Corps, United States Army
INDIANAPOLIS

In July of 1942, after trooping through the South for a year and a half as flight surgeon for an observation squadron, I received orders to report as an assistant surgeon of the Army Air Forces Troop Carrier Command.

Upon reporting for duty I found my commanding officer sick in his quarters. My first official act was to put him in the hospital, and then try to run a large organization about which I knew nothing.

Fortunately, with an excellent staff, things went along smoothly until the colonel's status could be determined and a new surgeon obtained.

From this time on it was a question of watching and helping to direct the medical department of the youngest command of the air forces. At first there was a struggle for qualified personnel for our squadrons, groups, wings and station hospitals. Along with this was advice and recommendations on the construction of medical installations at our various bases, most of which were new and just being completed.

Next came the supervision of Medical Department training, which, of course, has continued ever since. This necessitated frequent visits to our various bases.

Now we have units on every front, with well-trained Medical Department personnel to care for them.

THE WAGNER-MURRAY-DINGELL BILL

A Statement by the Council on Medical Service and Public Relations, American Medical Association

The legislation introduced in the United States Senate, June 3, 1943, by Senator Wagner and Senator Murray as S. 1161 and in the House of Representatives by Congressman Dingell as H. R. 2861 proposes radical amendments to the Social Security Act. Others have characterized it as "fantastic in scope, idealistic in objective and extremely expensive in its economic aspect."

The Council reserves judgment on the amendments proposed that are not directly concerned with medical care. Concern must be expressed, however, over the effect on the health of the people of that part of the legislation that undertakes to create a federally controlled system of compulsory sickness insurance to include an estimated 110,000,000 wage earners, self-employed persons and the dependents of both classes. Such a system would be created by section 11, which proposes to amend title IX of the Social Security Act to provide "Federal Medical, Hospitalization, and Related Benefits."

By a revolutionary process, the enactment of section 11 would undermine and destroy the American system of medicine that has developed in an evolutionary, healthful manner over the entire period of the history of medicine in the United States.

American medicine has developed an unexcelled quality of medical education. The enactment of section 11 would break down our system of medical education. It would remove the incentive that stimulates the student to acquire the best medical education obtainable by offering that student a regimented practice, federally supervised and controlled. This result the sponsors of the legislation inferentially apprehend by including a provision for federal grants-in-aid to stimulate medical education.

American medicine has made available to the people an unexcelled quality of medical care. The enactment of section 11 would attenuate the quality of medical care available to the people by imposing on physicians conditions of practice under which good medical care could not possibly be rendered. Medical practice would deteriorate from a highly personalized professional service to an impersonal, regimented service.

American medicine has produced unexcelled medical research by individuals. The enactment of section 11 would lessen the incentive for individual medical research by making it impossible for the results of that research to be utilized to their fullest extent. This result the sponsors of the legislation inferentially apprehend by providing for federal grants to *nonprofit institutions and agencies* to encourage and promote research.

American medicine has been responsible for a state of health of the people unexcelled in any other country. The enactment of section 11 would result in a deterioration of the health of the people, for if medical education suffers, if the quality of medical care available to the people becomes attenuated, if the incentive to individual medical research is removed, the resulting harmful effect on the health of the people will be inescapable.

What Does Section 11 Propose?

Section 11 proposes to amend title IX of the Social Security Act to provide general medical, special medical, laboratory and hospitalization benefits to every person currently insured under the act, to the wives and children of such persons and to certain other groups who may voluntarily bring themselves within the coverage of the act.

To provide these benefits, the Surgeon General of the United States Public Health Service would be authorized to make all necessary arrangements. He would, in effect, become the autocrat of American medicine. Although every physician legally qualified by a state may, if he consents to regimentation, participate in this compulsory health insurance scheme, the Surgeon General may by regulation prescribe the conditions of participation. He too would be authorized to determine what compensation the participating physicians may receive and would have the final say as to the manner in which they will be compensated, whether on the basis of fees for services rendered, on a per capita basis, on a salary basis or on any combination or modification of these bases. He would be authorized to limit the number of insured persons a particular physician may treat. He would be authorized to determine what constitutes the services of a specialist.

Ostensibly to assist the Surgeon General there will be created a National Advisory Medical and Hospital Council to be appointed by the Surgeon General, of which he will himself be chairman. This council will have no authority; it will be authorized only to "advise." While an insured individual may select, normally, from the list of participating general practitioners the physician to treat him, he will be denied that privilege if the physician's quota of patients, as established by the Surgeon General, is already filled. If he is in need of the services of a specialist, he will have no voice in the selection of that specialist. The Surgeon General may arbitrarily assign an insured person to a particular physician if such person does not make his own selection.

The bill provides that in each area the provision of general medical benefit for all insured persons shall be a "collective responsibility of all qualified general practitioners in the area who have undertaken to furnish such benefit." The significance of this provision is difficult to determine. It may signify that each participating physician will be responsible for the quality of medical service rendered by every other participating physician in that particular area.

The Surgeon General would be authorized to determine what hospitals may participate in the scheme. Hospital benefits will range from $3 to $6 for each day of hospitalization, not in excess of thirty days, as determined by the Surgeon General with the approval of the Social Security Board. The rates will range from $1.50 to $4 for each day of hospitalization over thirty but not exceeding ninety. If the insured is placed in an institution for the care of the "chronic sick" the rate will range from $1.50 to $3 a day. Instead of making such payments to the insured individual, the Surgeon General, subject to the approval of the Social Security Board, may make contracts with participating hospitals for the payment of the reasonable cost of hospital service at rates neither less than the minimum nor more than the maximum rates specified, such payment to be full reimbursement for the cost of essential hospital services, including the use of ward or other least expensive facilities compatible with the proper care of the patient.

Insured persons will also be entitled to certain laboratory and other benefits, the nature and extent of which will be determined by the Surgeon General but which will include chemical, bacteriologic, pathologic, diagnostic, and therapeutic x-ray and related laboratory services, physical therapy, special appliances prescribed by physicians, and eye glasses prescribed by a physician or other legally qualified practitioner.

Taxes to Provide Benefits

To finance the provisions of this bill, each included employer will be taxed annually at the rate of 6 per cent of his payroll, excluding all remuneration paid to an employee in excess of $3,000 a year, and each insured employee will be taxed 6 per cent annually of the wages received up to $3,000. Self-employed persons will be required to pay 7 per cent of the market value of their services annually up to $3,000. States and political subdivisions and their employees will be taxed at the rate of 3.5 per cent up to $3,000 if such governmental units voluntarily, by compacts, come within the coverage of the Social Security Act.

Of this total tax a certain amount will be credited to a "Medical Care and Hospitalization Account," an amount estimated as in excess of $3,000,000,000 annually.

Grants-in-aid

Section 12 of the bill, as previously indicated, provides grants-in-aid as a stimulus for medical education, research and for the prevention of disease and disability, in apparent recognition that the enactment of the bill will require such a stimulus. The Surgeon General of the Public Health Service will determine who will be the recipients of such grants and the specific amounts that will be granted. He will determine too whether a particular project is worthy of stimulation.

The enactment of this bill will destroy the private practice of medicine. It will create a political system of medicine dictated by a federal bureaucracy. It will lower the high health level of the people of the United States. Its enactment should be vigorously opposed.

Reprinted from The Journal of the American Medical Association of November 13, 1943

BUY UNITED STATES
DEFENSE BONDS

Membership Roster

INDIANA STATE MEDICAL ASSOCIATION—1943

Following is a list of the members of the Indiana State Medical Association, including the names of all those who were members on November 16, 1943. Membership established after that date could not be included in this issue of THE JOURNAL. Members are listed in the county in which they hold their membership.

An asterisk (*) precedes the names of physicians who are in service in the armed forces.

Military addresses, for obvious reasons, are not published in this list. If the addresses of your friends appearing in the list below are not known to you, call the Indiana State Medical Association, FRanklin 3627, and if the addresses are known here, they will be given to you.

The letter (H) following a name indicates that the physician is an honorary member of his local society and of the Indiana State Medical Association.

Names of members who have died during the year do not appear in this list.

If any errors are found in this list, please report them to THE JOURNAL, 1021 Hume Mansur Building, Indianapolis 4, Indiana. The cooperation of members is urgently requested.

Name	City	County
*Aagesen, W. J.	Anderson	Madison
Abel, J. A.	South Bend	St. Joseph
*Abell, Charles F.	Marion	Grant
Acker, Robert B.	South Bend	St. Joseph
Aere, R. R.	Evansville	Vanderburgh
Adair, Wm. K.	Crothersville	Jackson
Adams, C. J.	Kokomo	Howard
Adams, D. S.	Indianapolis	Marion
Adams, J. R.	Fort Wayne	Allen
Adams, Julia L.	Muncie	Delaware-Blackford
Adams, M. R.	Flora	Carroll
Adams, W. B.	Muncie	Delaware-Blackford
Ade, C. H.	La Fayette	Tippecanoe
Ade, Mary	La Fayette	Tippecanoe
*Adkins, H. C.	Indianapolis	Marion
*Adler, Raymond N.	Evansville	Vanderburgh
Aiken, M. M.	Plainfield	Hendricks
*Ake, Loren	Cambridge City	Wayne-Union
Aker, Charles L.	Greencastle	Putnam
*Albertson, F. P.	Trafalgar	Johnson
Alburger, Henry R.	Indianapolis	Marion
Aldrich, Harry	Fort Wayne	Allen
*Aldrich, Harry	Indianapolis	Marion
Aldrich, Howard	Indianapolis	Marion
Aldridge, J. W.	Covington	Fountain-Warren
Alexander, H. H.	Princeton	Gibson
*Alexander, J. E.	Evansville	Vanderburgh
*Alexander, J. M.	Argos	Marshall
Alexander, O. O.	Terre Haute	Vigo
Alexander, P. M.	Martinsville	Morgan
Alexander, W. P. (H)	Gary	Lake
*Allen, F. K.	Fredericksburg	Washington
Allen, H. R.	Indianapolis	Marion
Allen, Hubert E.	Richmond	Wayne-Union
Allen, J. L.	Greenfield	Hancock
*Allen, Lionel H.	Bedford	Lawrence
Allen, Orris T.	Terre Haute	Vigo
Allenbaugh, A. E.	Evansville	Vanderburgh
Almquist, C. O.	Gary	Lake
Altier, W. H.	Fowler	Benton
Alvis, E. O.	Indianapolis	Marion
*Ambrose, J. C.	Noblesville	Hamilton
Amick, Charles L.	Wakarusa	Elkhart
Amos, E. M. (H)	Indianapolis	Marion
*Amos, R. L.	New Castle	Henry
Amstutz, H. Clair	Goshen	Elkhart
Amy, W. E.	Corydon	Harrison
*Anderson, C. P.	Gary	Lake
Anderson, D. W.	Evansville	Vanderburgh
Anderson, R. J.	Indianapolis	Marion
Anderson, R. M.	Vincennes	Knox
*Anderson, Walter C.	Terre Haute	Vigo
*Anderson, W. C.	Rockville	Parke-Vermillion
*Andrews, C. L.	Greenfield	Hancock
*Andrews, D. Lee	Clermont	Marion
Ankenbrock, W. S.	Indianapolis	Marion
Annis, H. B.	Bluffton	Wells
Anthoulis, George D.	Gary	Lake
*Appel, R. H.	Indianapolis	Marion
*Applegate, F. M.	Corydon	Harrison
*Arbogast, John L.	La Fayette	Tippecanoe
Arbogast, P. B.	Vincennes	Knox
*Arbuckle, Russell	Indianapolis	Marion
Arbuckle, Wm. E.	Indianapolis	Marion
Arford, R. D.	Middletown	Henry
*Arisman, R. K.	South Bend	St. Joseph
*Arlook, Theodore D.	Elkhart	Elkhart
Armington, C. L.	Anderson	Madison
Armington, John C.	Anderson	Madison
*Armington, Robert	Anderson	Madison
Armstrong, T. D.	Michigan City	La Porte
Arnett, A. C.	La Fayette	Tippecanoe
*Arnold, Aaron L.	Indianapolis	Marion
*Arnold, Ralph D.	Ligonier	Noble
Arnold, Ralph N.	Greenfield	Hancock
*Aronson, Sidney S.	Indianapolis	Marion
Arthur, H. M.	Hazelton	Gibson
Arthur, N. Maude	Washington	Daviess-Martin
Asbury, W. D.	Terre Haute	Vigo
*Ash, H. H.	West Lafayette	Tippecanoe
Asher, E. O.	New Augusta	Marion
Ashworth, L. N.	Connersville	Fayette-Franklin
Aspy, J. A. M.	Indianapolis	Marion
*Atcheson, Bellfield	Gary	Lake
Atchison, K. C.	Rockport	Spencer
Atkins, C. C.	Rushville	Rush
Atkinson, C. W.	Boswell	Benton
*Aucreman, C. J.	Montpelier	Delaware-Blackford
*Austin, Eugene W.	Anderson	Madison
Austin, F. H.	Bloomington	Monroe
Austin, M. A.	Anderson	Madison
Austin, R. P.	Bedford	Lawrence
Axe, R. H.	Chesterton	Porter
Ayling, E. K.	South Bend	St. Joseph
Ayres, Kenneth D.	Anderson	Madison
*Ayres, W. W.	Hartford City	Delaware-Blackford
Backer, H. G.	Ferdinand	Dubois
Badders, A. C.	Portland	Jay
*Baganz, C. N.	Uniondale	Wells
Bahr, Max A.	Indianapolis	Marion
*Bailey, E. B.	Linton	Greene
*Bailey, E. W.	Logansport	Cass
*Bailey, L. S.	Zionsville	Boone
Bailey, Paul P.	Fort Wayne	Allen
*Bailey, P. W.	Fort Wayne	Allen
Bailey, W. A.	Vincennes	Knox
Baitinger, H. M.	Gary	Lake
Bakemeier, O. H.	Indianapolis	Marion
Baker, A. M.	New Albany	Floyd
Baker, C. S.	Evansville	Vanderburgh
Baker, G. D.	Crandall	Harrison
Baker, Herman	Evansville	Vanderburgh
Baker, J. S.	Evansville	Vanderburgh
Baker, J. V. (H)	Edinburg	Johnson
*Baker, Leslie M.		Delaware-Blackford
Baker, Milan D.	Culver	Marshall
Baker, Robert E. (H)	Orleans	Orange
Baker, Warren	Westville	LaPorte
Baker, W. H.	South Bend	St. Joseph
Bakes, Fred C.	Vevay	Switzerland
*Balch, James F.	Indianapolis	Marion
Baldridge, E. R.	Terre Haute	Vigo
*Baldridge, W. O.	Terre Haute	Vigo
Baldwin, John H.	Jeffersonville	Clark
Ball, Clay A.	Muncie	Delaware-Blackford
Ball, Thomas Z. (H)	Crawfordsville	Montgomery
Balla, Morris	South Bend	St. Joseph
Ballard, C. A.	Logansport	Cass
*Ballenger, W. E.	Richmond	Wayne-Union
*Balsbaugh, George	N. Manchester	Wabash
*Baltes, Joseph H.	Fort Wayne	Allen
Banister, R. F.	Indianapolis	Marion
*Banks, H. M.	Indianapolis	Marion
Barclay, I. C.	Evansville	Vanderburgh
*Bard, Frank B.	Crothersville	Jackson
Barnard, P. C.	Parker	Delaware-Blackford
*Barnett, R. E.	Bunker Hill	Miami
*Barnett, Wm.	Logansport	Cass
Barnum, Emerson	Shelbyville	Shelby
*Barron, E. A.	La Porte	La Porte
Barrow, John H.	Dale	Spencer
Barry, M. J.	Indianapolis	Marion
*Bartle, J. Leo	Knightstown	Henry
Bartley, D. A.	Indianapolis	Marion
Bartholomew, A. C.	Fort Wayne	Allen
Bartholomew, Mary	Goshen	Elkhart
*Barton, W. M.	Centerville	Wayne-Union
Bascomb, Marshall R.	Calumet City, Ill.	Lake
*Baskett, R. J.	Jonesboro	Grant
Bass, F. E.	Shelbyville	Shelby
Bassett, Clancy	Thorntown	Boone

Name	City	County
Bassler, C. R.	Mishawaka	St. Joseph
Batman, F. H.	Bloomington	Monroe
Batman, G. W.	Indianapolis	Marion
Bauer, A. J.	La Fayette	Tippecanoe
*Baumgart, E. T.	Indianapolis	Marion
Baumgartner, Jeraldine	Fort Wayne	Allen
Baumrucker, George O.	Indianapolis	Marion
Baxter, James W.	New Albany	Floyd
*Baxter, J. W., Jr.	New Albany	Floyd
*Baxter, Neal	Bloomington	Monroe
*Baxter, Samuel M.	New Albany	Floyd
Bayley, R. H.	La Fayette	Tippecanoe
Beach, Robert R.	Indianapolis	Marion
*Beamer, G. D.	Delphi	Carroll
*Beams, Ralph H.	Fairmount	Grant
Bear, L. H.	Vevay	Switzerland
*Beard, Paul H.	Indianapolis	Marion
Beardsley, F. A.	Frankfort	Clinton
Beasley, T. J.	Indianapolis	Marion
Beatty, Norman M.	Indianapolis	Marion
*Beaver, Ernest R.	Indianapolis	Marion
Beavers, S. D. (H)	Decatur	Adams
*Beehtold, S. E.	South Bend.	St. Joseph
Beek, H. A.	Lebanon	Boone
Beeker, Philip H.	Crown Point	Lake
Beekman, H. F.	Indianapolis	Marion
Bedwell, Marion H.	Sullivan	Sullivan
Beeler, Bruce H.	Evansville	Vanderburgh
Beeler, R. C.	Indianapolis	Marion
Beeson, R. H.	Muncie	Delaware-Blackford
*Beetem, L. F.	Madison	Jefferson
Beggs, L. F.	Columbus	Bartholomew
Behn, W. M.	Gary	Lake
*Beierlein, Karl	Fort Wayne	Allen
Belden, L. D.	Indianapolis	Marion
Bell, D. W.	Otwell	Pike
Bender, Cecil K.	Goshen	Elkhart
Bendler, C. H.	Gary	Lake
Benham, James W.	Columbus	Bartholomew
Benham, Shirley	La Porte	La Porte
Benjamin, Margaret	Kalamazoo, Mich.	Jefferson
*Bennett, J. B.	Warren	Huntington
Benninghoff, D. R.	Fort Wayne	Allen
Bentle, P. C.	Greensburg	Decatur
Benz, Jesse	Marengo	Crawford
*Benz, O. F.	Whiting	Lake
Beresford, G. B. (H)	Owensville	Gibson
Berger, Henry I.	Indianapolis	Marion
Berghoff, Raymond	Fort Wayne	Allen
*Berke, Robert	South Bend	St. Joseph
*Berkebile, J. B.	Peru	Miami
Berman, J. K.	Indianapolis	Marion
Bernheimer, H. L. (H)	Terre Haute	Vigo
Bernoske, D. G.	Michigan City	La Porte
Berns, P. C.	Linton	Greene
*Bernstein, Joseph	Indianapolis	Marion
Berry, David F.	Indianapolis	Marion
Bethea, D. A.	Hammond	Lake
Beverland, M. E.	Indianapolis	Marion
Bibler, Henry E.	Muncie	Delaware-Blackford
*Bibler, L. D.	Indianapolis	Marion
Biee, Lon C.	Edinburg	Johnson
Biekel, David A.	South Bend	St. Joseph
Bickel, J. E.	Fort Wayne	Allen
Bicknell, G. F.	East Chicago	Lake
Bierly, Fred	Elizabeth	Floyd
Bigelow, O. P.	Roanoke	Huntington
Bigger, W. M.	Hammond	Lake
Bigham, J. C.	Batesville	Ripley
*Bigsby, Frank L., Jr.	Evansville	Vanderburgh
*Bill, Robert O.	Indianapolis	Marion
Billman, G. S.	Shelbyville	Shelby
Billman, J. M. (H)	Sullivan	Sullivan
Bills, L. F.	Gary	Lake
Bills, R. N.	Gary	Lake
Bird, Charles R.	Indianapolis	Marion
*Birdzell, J. P.	Crown Point	Lake
Birmingham, P. J.	South Bend	St. Joseph
Bishop, Charles A.	South Bend	St. Joseph
Bitler, C. C.	New Castle	Henry
Black, Claude S.	Warren	Huntington
Black, Edgar K.	Wabash	Wabash
*Blackburn, Erwin	South Bend	St. Joseph
Blackford, Florence	Indianapolis	Marion
Blackford, R. E.	Indianapolis	Marion
Blaize, J. L.	Vincennes	Knox
Bland, Curtis	Terre Haute (Long Beach, Calif.)	Vigo
Bland, H. E.	Fairbanks	Sullivan
*Blatt, A. E.	Indianapolis	Marion
*Blazey, A. G.	Washington	Daviess-Martin
*Bledsoe, J. G.	New Castle	Henry
*Blemker, Russell	Greensburg	Decatur
Blessinger, Paul J.	Jasper	Dubois
Blinks, E. G.	Michigan City	Lake
Bloemker, E. F.	Indianapolis	Marion
Blood, R. P.	Hebron	Porter
*Bloom, Asa Ward	Marion	Grant
Bloomer, J. R.	Rockville	Parke-Vermillion
*Bloomer, R. S.	Rockville	Parke-Vermillion
Blosser, B. A.	Fremont	Steuben
Blosser, H. V.	Fort Wayne	Allen
Blossom, Paul W.	Richmond	Wayne-Union
Blum, Leon L.	Terre Haute	Vigo
Boardman, Carl	Gary	Lake
Boaz, John J.	Indianapolis	Marion
Bogardus, C. R.	Austin	Scott
Boggs, E. F.	Indianapolis	Marion
Bogue, W. J.	Chicago, Ill.	Wabash
Bohannon, M. J.	Terre Haute	Vigo
Bohner, C. B.	Indianapolis	Marion
Bolin, J. T.	Hammond	Lake
*Bolin, Robert S.	Goshen	Elkhart
*Boling, R. L.	Indianapolis	Marion
Bolka, B. J.	South Bend	St. Joseph
Bond, Charles S. (H)	Richmond	Wayne-Union
Bond, George S.	Indianapolis	Marion
Bond, Walter	Clay City	Clay
Boner, G. W.	Butlerville	Jennings
Bonifield, H. F.	Warren	Huntington
Booher, Irvin E.	Connersville	Fayette-Franklin
*Booher, Norman R.	Indianapolis	Marion
Booher, Olga	Indianapolis	Marion
Boone, John C. (H)	South Bend	St. Joseph
Bopp, D. W.	Whiting	Lake
Bopp, Henry W.	Terre Haute	Vigo
Borders, Theo. R.	Fort Wayne	Allen
*Boren, Paul	Poseyville	Posey
Boren, Samuel W. (H)	Poseyville	Posey
Borland, R. M.	Bloomington	Monroe
Bosenbury, C. S.	South Bend	St. Joseph
Bosler, Howard A.	New Paris	Elkhart
Bosselmann, C. C.	Fort Wayne	Allen
Bostwick, James G.	Mishawaka	St. Joseph
Bothwell, C. G.	Martinsville	Morgan
Bottorff, David C.	Charlestown	Clark
Boulware, J. P.	Bloomington	Monroe
Bounell, E. G.	Hillsboro	Fountain-Warren
Bowdoin, G. E.	Elkhart	Elkhart
Bowen, J. F.	Rushville	Rush
Bower, Daniel L.	Indianapolis	Marion
*Bowers, Copeland C.	Kokomo	Howard
Bowers, Don D.	Indianapolis	Marion
Bowers, G. T.	Fort Wayne	Allen
*Bowers, J. W.	Fort Wayne	Allen
Bowles, J. H.	Muncie	Delaware-Blackford
*Bowman, Charles M.	Albion	Noble
Bowman, George W.	Indianapolis	Marion
Bowman, I. E.	Odon	Daviess-Martin
Boyd, C. L.	Vincennes	Knox
Boyd, Charles S.	East Chicago	Lake
Boyd, Clarence E.	West Baden	Orange
Boyd, David A., Jr.	Indianapolis	Marion
*Boyd, N. E.	Freelandville	Knox
Boyd, Stella N.	Evansville	Vanderburgh
Boyd-Snee, Harry (H)	South Bend	St. Joseph
*Boyer, E. B.	Indianapolis	Marion
Boyer, Floyd A.	Indianapolis	Marion
Boyer, Grace M.	Marion	Grant
Boys, F. F.	East Chicago	Lake
Bradfield, J. C.	Logansport	Cass
Bradley, Stephen C.	Terre Haute	Vigo
Brady, Samuel	Gary	Lake
Braginton, Fred	Hammond	Marion
Brandman, Harry	Whiting	Lake
Brauehla, C. H.	Anderson	Madison
Brauer, A. A.	East Chicago	Lake
Braun, B. D.	East Chicago	Lake
Braunlin, Robert F.	Marion	Grant
Braunlin, W. H.	Marion	Grant
Braunsdorf, R. L.	South Bend	St. Joseph
Brayton, John R.	Indianapolis	Marion
Brayton, Lee	Indianapolis	Marion
Brazelton, O. T.	Princeton	Gibson
Brendel, O. E.	Zionsville	Boone
*Brenner, Andrew M.	Winchester	Randolph
Brenner, I. E.	Winchester	Randolph
Bretz, W. D.	Huntingburg	Dubois
Brickley, H. D.	Bluffton	Wells
Bridge, M. L.	Van Buren	Grant
*Bridwell, Edgar	Delphi	Carroll
Briggs, C. F.	Sullivan	Sullivan
Briggs, J. H.	Churubusco	Whitley
Brink, C. C.	Gary	Lake
Briscoe, C. E.	New Albany	Floyd
*Britton, W. D.	Indianapolis	Marion
Broek, Earl E.	Anderson	Madison
*Brodie, Donald W.	Oaklandon	Marion
*Brody, Arthur	East Chicago	Lake
Bronson, Paul J.	Terre Haute	Vigo
*Brookie, Roger W.	Flora	Carroll
Brooks, H. L.	Michigan City	La Porte
Brosins, Robert H. W.	Fort Wayne	Allen
*Brother, Geo. M.	Indianapolis	Marion
*Brown, A. E.	Indianapolis	Marion
Brown, C. W.	Rolling Prairie	La Porte
*Brown, D. B.	Gary	Lake
Brown, D. E.	Indianapolis	Marion
Brown, Edward A.	Indianapolis	Marion
Brown, Frances T.	Indianapolis	Marion
*Brown, J. C.	Valparaiso	Porter
Brown, J. S.	Carlisle	Sullivan
Brown, Karl T.	Muncie	Delaware-Blackford
*Brown, K. H.	New Albany	Floyd
*Brown, M. S.	Spencer	Owen
Brown, R. E.	Cayuga	Parke-Vermillion
Brown, R. R.	Terre Haute	Vigo
*Brown, Robert	Marion	Grant
Brown, S. L.	Hammond	Lake
*Brown, Wendell E.	Indianapolis	Marion
*Browning, J. S.	Indianapolis	Marion
*Browning, W. M.	Indianapolis	Marion
Brubaker, E. H.	Indianapolis	Marion
Brubaker, E. H.	Flora	Carroll
Brubaker, Harold S.	Huntington	Huntington
Brubaker, O. G.	N. Manchester	Wabash
*Bruegge, T. J.	Kokomo	Howard
Bruetsch, Walter L.	Indianapolis	Marion
Bruggeman, H. O.	Fort Wayne	Allen
Bruner, C. H.	Greenfield	Hancock
Bruner, Ralph	Jeffersonville	Clark
*Bryan, F. A.	Indianapolis	Marion
Bryan, S. L.	Evansville	Vanderburgh
*Buchanan, W. D.	Bremen	St. Joseph
Buehe, F. P.	Richmond	Wayne-Union
Buckley, E. P.	Jeffersonville	Clark
Buckner, Doster	Fort Wayne	Allen
Buckner, Joy F.	N. Manchester	Wabash
*Buechner, F. W.	South Bend	St. Joseph
Buehl, Robert F.	Indianapolis	Marion
*Buhrmester, H. C.	La Fayette	Tippecanoe
Buikstra, C. R.	Evansville	Vanderburgh
Bullard, M. J.	Gary	Lake
Bulson, E. L.	Fort Wayne	Allen
Buneh, Rollin H.	Muncie	Delaware-Blackford
Bundrant, Herschel	Detroit, Mich.	Allen
*Bundy, Merle	Salem	Washington
*Bunge, Clarence E.	Logansport	Cass
Bunker, L. Z.	N. Manchester	Wabash
Bureham, J. B.	Gary	Lake
Burckhardt, Louis (H)	Indianapolis	Marion
Burge, A. D.	Marion	Grant
Burk, James M.	Decatur	Adams
Burke, H. L.	Bremen	Marshall

Name	City	County
*Burkhardt, B. A.	Tipton	Tipton
Burkle, J. C.	W. La Fayette	Tippecanoe
Burleson, C. E.	La Porte	La Porte
*Burman, Richard G.	Jeffersonville	Clark
*Burnett, A. B.	New Castle	Henry
Burns, Elizabeth	Fort Wayne	Allen
Burress, B. O.	Washington	Daviess-Martin
Burris, F. L.	Michigan City	La Porte
Burroughs, C. A.	Frankfort	Clinton
Burrous, E. Lee	Peru	Miami
*Burton, F. H.	Indianapolis	Marion
Bush, H. R.	Cannelton	Perry
Bussard, C. F.	South Bend	St. Joseph
Butler, Raymond	Beech Grove	Marion
Butman, W. C.	Hebron	Porter
*Butterfield, Robt. M.	Muncie	Delaware-Blackford
Buttz, Rose J.	Indianapolis	Marion
Buxton, Eva (H)	Rockport	Spencer
Byers, Norman R.	Bedford	Lawrence
Byrn, H. W.	Indianapolis	Monroe
Cabell, A. L. (H)	Terre Haute	Vigo
Cacia, John J.	Evansville	Vanderburgh
Cahal, E. E.	Indianapolis	Marion
Cahn, Hugo M.	Indianapolis	Marion
Call, E. B.	Knightstown	Henry
Call, H. F.	Indianapolis	Marion
*Callaghan, W. C.	Greensburg	Decatur
*Callahan, R. H.	East Chicago	Lake
*Calvert, R. R.	West Lafayette	Tippecanoe
Calvin, Jessie C.	Fort Wayne	Allen
Cameron, D. F.	Fort Wayne	Allen
Cameron, J. F. (H)	Hamilton	Steuben
Camp, Waldo George	Boonville	Warrick
Campagna, E. A.	East Chicago	Lake
Campbell, J. A.	Indianapolis	Marion
Campbell, P. A.	Indianapolis	Marion
Campbell, Ruth R.	South Bend	St. Joseph
Canaday, C. E.	New Castle	Henry
Canaday, J. W.	Indianapolis	Marion
*Caplin, Irvin	Indianapolis	Marion
*Caplin, S. S.	Indianapolis	Marion
*Carbone, J. A.	Gary	Lake
Carey, W. W.	Fort Wayne	Allen
Carl, O. U.	Peru	Miami
Carlberg, D. L.	Jeffersonville	Clark
Carleton, E. H.	East Chicago	Lake
Carlo, Ernest R.	Fort Wayne	Allen
*Carlo, J. F.	Hammond	Lake
Carlson, E. A.	Peru	Miami
*Carlson, Norman R.	Michigan City	La Porte
Carlyle, Ivan E.	Michigantown	Clinton
Carmichael, C. S.	Seelyville	Vigo
Carmody, R. F.	Gary	Lake
Carneal, Thomas E.	Winamac	Pulaski
Carney, C. E.	Delphi	Carroll
Carney, J. T.	Jeffersonville	Ripley
*Carney, John C.	Monticello	Tippecanoe
Carpenter, G. C.	Terre Haute	Vigo
Carpenter, J. L.	Alexandria	Madison
*Carrel, Francis E.	Indianapolis	Marion
*Carson, Wayne	Indianapolis	Marion
Carter, F. R. Nicholas	South Bend	St. Joseph
Carter, James C.	Indianapolis	Marion
*Carter, J. V.	Tipton	Tipton
Carter, L. D.	Indianapolis	Marion
Carter, Oren E.	Indianapolis	Marion
Cartwright, E. L.	Fort Wayne	Allen
Casebeer, P. B.	Clinton	Parke-Vermillion
*Caseley, Donald F.	Indianapolis	Marion
Casey, Stanley M.	Huntington	Huntington
Casper, Joseph	Jasper	Dubois
Casper, J. P.	Jasper	Dubois
Cassady, J. V.	South Bend	St. Joseph
*Cassidy, John L.	Evansville	Vanderburgh
*Caton, J. R.	South Bend	St. Joseph
Catlett, M. B.	Fort Wayne	Allen
Cavins, A. W.	Terre Haute	Vigo
Cavins, C. S.	Detroit, Mich.	Lake
Caylor, Charles E.	Bluffton	Wells
Caylor, Harold D.	Bluffton	Wells
Caylor, Truman E.	Bluffton	Wells
*Challman, W. B.	Mount Vernon	Posey
*Chambers, A. R.	Fort Wayne	Allen
*Chambers, L. B.	Union City	Randolph
Chandler, L. H.	Millersburg	Elkhart
Chapin, J. P.	Mountain Home, Tenn.	Madison
Chappell, R. S.	Indianapolis	Marion
Charles, Etta (H)	Anderson	Madison
*Chattin, V. J.	Washington	Daviess-Martin
*Chavinson, Benj. F.	Decatur	Adams
Chen, K. K.	Indianapolis	Marion
*Cheney, F. D.	Indianapolis	Marion
Chenoweth, A. C.	Huntington	Huntington
Chester, H. R.	Fort Wayne	Allen
Chevigny, J. J.	Gary	Gary
Chidlaw, B. W.	Hammond	Lake
Childs, A. G. W.	Madison	Jefferson
*Childs, Wallace E.	Princeton	Gibson
Chittick, A. G.	Frankfort	Clinton
Christophel, Verna	Mishawaka	St. Joseph
Christophel, W. B.	Mishawaka	St. Joseph
Clancy, J. F.	Hammond	Lake
*Clark, Charles	South Bend	St. Joseph
Clark, C. M.	Oakland City	Gibson
Clark, C. P.	Indianapolis	Marion
*Clark, Cyrus J.	Indianapolis	Marion
Clark, Fred O.	Syracuse	Elkhart
Clark, Ivan A.	Paoli	Orange
Clark, L. J.	Indianapolis	Marion
Clark, M. E.	Cambridge City	Wayne-Union
Clark, Stanley A.	South Bend	St. Joseph
*Clark, Wm. H.	South Bend	St. Joseph
*Clark, W. R.	Fort Wayne	Allen
Clarke, Elton R.	Kokomo	Howard
Clauser, A. C.	Delphi	Carroll
Clauser, E. H.	Muncie	Delaware-Blackford
Clawson, J. C.	Richmond	Wayne-Union
*Clements, A. F.	Evansville	Vanderburgh
*Clevenger, J. H.	Muncie	Delaware-Blackford
*Close, W. D.	Indianapolis	Marion
Clutter, T. J.	Mentone	Kosciusko
Coble, F. H.	Richmond	Wayne-Union
Coble, R. R.	Indianapolis	Marion
Cochran, R. B.	Vincennes	Knox
Cockrum, Wm. M.	Evansville	Vanderburgh
Cody, B. L.	Evansville	Vanderburgh
*Cogswell, H. D.	Whiting	Lake
*Cohen, B. B.	East Chicago	Lake
*Cohen, B. W.	Indianapolis	Marion
*Cohen, Morris	Mitchell	Lawrence
Cohn, Phillip	New Albany	Floyd
Cole, A. V.	Hammond	Lake
*Cole, Alfred J.	W. Lafayette	Tippecanoe
Cole, Ira	La Fayette	Tippecanoe
Cole, R. E.	Muncie	Delaware-Blackford
*Cole, Wm. L.	Evansville	Vanderburgh
*Coleman, H. G.	Palmyra	Daviess-Martin
Coleman, W. H.	Evansville	Vanderburgh
Coleman, Wm. S.	Carthage	Rush
*Colglazier, Donald	Salem	Washington
Colglazier, G. G.	Leipsic	Orange
*Colip, George	South Bend	St. Joseph
Collett, G. A.	Crawfordsville	Montgomery
Collings, T. J.	Rockville	Parke-Vermillion
Collins, A. W.	Anderson	Madison
Collins, Hubert L.	Indianapolis	Marion
Collins, J. N.	Indianapolis	Marion
Combs, Charles N.	Terre Haute	Vigo
*Combs, Herman	Evansville	Vanderburgh
Combs, John H.	Evansville	Vanderburgh
*Combs, Nelson B.	Mulberry	Clinton
Combs, Pearl B.	Evansville	Vanderburgh
*Combs, Stuart R.	Terre Haute	Vigo
*Comer, Charles W.	Mooresville	Morgan
Comer, J. E.	Mooresville	Morgan
*Comer, Kenneth E.	Mooresville	Morgan
Compton, C. B.	Frankfort	Clinton
*Compton, Walter A.	Elkhart	Elkhart
*Comstock, Glenn E.	Gary	Lake
Condit, David H.	South Bend	St. Joseph
Conger, Elizabeth	Indianapolis	Marion
Congleton, G. C.	Terre Haute	Vigo
Conklin, R. L.	Elkhart	Elkhart
Conley, John E.	Fort Wayne	Allen
Conley, Joseph L.	Indianapolis	Marion
Conley, T. M.	Kokomo	Howard
*Connell, P. S.	Plymouth	Marshall
Connelly, J. J.	Terre Haute	Vigo
Conner, D. N.	Markleville	Madison
Conner, T. E.	Freetown	Jackson
*Connerley, M. L.	Boston, Mass.	Marion
Connoy, Andrew F.	Westfield	Hamilton
Conover, Earl	Evansville	Vanderburgh
Conrad, E. M.	Anderson	Madison
Conway, Chester C.	Indianapolis	Marion
Conway, Glenn	Indianapolis	Marion
Cook, C. J. (H)	Indianapolis	Marion
*Cook, Charles E.	No. Manchester	Wabash
Cook, E. C.	Madison	Jefferson
Cook, G. M.	Hammond	Lake
Cooksey, Thomas L.	Crawfordsville	Montgomery
Coomes, M. Joseph	Shelbyville	Shelby
*Cooney, Charles J.	Fort Wayne	Allen
Coons, John D.	Lebanon	Boone
Cooper, H. L.	South Bend	St. Joseph
Cooper, Leo Kenneth	Gary	Lake
Cooper, Ross A.	Carmel	Hamilton
Cooper, Thomas L.	Logansport	Cass
Copeland, C. C. (H)	North Madison	Jefferson
Copeland, G. W.	Vevay	Switzerland
Copeland, R. M. (H)	Vevay	Switzerland
Copeland, S. J.	Indianapolis	Marion
Corbin, E. M. (H)	Sullivan	Sullivan
*Corboy, Philip	Valparaiso	Porter
Corcoran, A. C.	Indianapolis	Marion
*Cornacchione, M.	Indianapolis	Marion
Cornell, Beaumont S.	Fort Wayne	Adams
Cortese, Thomas A.	Indianapolis	Marion
*Cotter, E. R.	East Chicago	Lake
Cotter, Thomas F.	East Chicago	Lake
Cottingham, C. E. (H)	Indianapolis	Marion
Cotton, Perry	Elwood	Madison
Cotton, S. M.	Windfall	Tipton
Coulson, S. B.	Waldron	Shelby
Coultas, P. J.	Tell City	Perry
Courtney, T. E. (H)	Indianapolis	Marion
*Covalt, Donald A.	Muncie	Delaware-Blackford
Covalt, Nila	Muncie	Delaware-Blackford
*Covell, H. M.	Auburn	De Kalb
Cox, C. E.	Indianapolis	Marion
Cox, H. Bailey	Indianapolis	Marion
Cox, Leon T.	Fountain City	Wayne-Union
*Cox, W. T.	La Fayette	Tippecanoe
Coyner, A. B.	La Fayette	Tippecanoe
Crabbe, Violet	Wolcott	Tippecanoe
Crabtree, L. R.	Columbus	Bartholomew
Craft, K. L.	Indianapolis	Marion
Craft, William F.	Linton	Greene
Craig, J. A.	Greenwood	Johnson
Craig, R. A.	Kokomo	Howard
Craig, Robert A.	Indianapolis	Marion
*Crain, James W.	St. Meinrad	Spencer
Cramp, Arthur J.	Hendersonville, N. C.	Porter
Crampton, C. C.	Delphi	Carroll
Crane, Albert L.	Evansville	Vanderburgh
Crawford, Helen	Indianapolis	Marion
Crawford, W. G.	Terre Haute	Vigo
Crews, C. H.	Hammond	Lake
Crimm, Paul D.	Evansville	Vanderburgh
Cring, George	Portland	Jay
*Cripe, E. P.	Redkey	Jay
Crockett, F. S.	La Fayette	Tippecanoe
Crockett, H. E.	Indianapolis	Marion
*Crossland, S. H.	Gary	Lake
Crowder, James H.	Sullivan	Sullivan
Crowder, J. R.	Sullivan	Sullivan
*Crum, Marion M.	Angola	Steuben
*Culbertson, C. S.	South Bend	St. Joseph
Culbertson, Clyde G.	Indianapolis	Marion
*Cullen, P. K.	Indianapolis	Marion
Cullnane, C. W.	Evansville	Vanderburgh
Culmer, W. N.	Bloomington	Monroe
Cummings, D. J.	Ewing	Jackson
Cunningham, J. M.	Indianapolis	Marion
Cure, Elmer T.	Muncie	Delaware-Blackford
Curry, Claude A.	Terre Haute	Vigo
Cuttner, M. L.	Vincennes	Knox
*Cushman, J. B.	Gary	Lake

Name	City	County
Custer, E. W.	South Bend	St. Joseph
Cuthbert, F. S.	Kokomo	Howard
Cuthbert, M. P.	New York, N. Y.	Howard
Dahling, C. W.	New Haven	Allen
Dailey, J. E.	Terre Haute	Vigo
*Dainko, A. J.	Whiting	Lake
Dale, B. C.	Marion	Grant
Dale, J. W.	Chesterton	Porter
Dalton, John E.	Indianapolis	Marion
Dalton, Naomi	Bloomington	Monroe
Dancer, C. R.	Fort Wayne	Allen
Dardo, George H. (H)	Hartford City	Delaware-Blackford
Daniel, J. C.	Indianapolis	Marion
Danieleski, L. J.	Gary	Lake
Daniels, E. O.	Marion	Grant
Daniels, G. R.	Marion	Grant
*Daniels, Robert E.	Decatur	Adams
Danruther, C. B.	La Porte	La Porte
Dare, Lee A.	Jeffersonville	Clark
Darling, Dorothy	South Bend	St. Joseph
Darroch, S. C.	Cayuga	Parke-Vermillion
Dasse, Richard J.	East Chicago	Lake
Daubenheyer, M. F.	Charlestown	Ripley
*Daugherty, F. N.	Crawfordsville	Montgomery
*Daves, W. L.	Evansville	Vanderburgh
Davidson, N. Cort	Indianapolis	Marion
*Davidson, Wm. D.	Evansville	Vanderburgh
Davidson, W. R.	Evansville	Vanderburgh
Davin, Julia R.	Rockville	Parke-Vermillion
Davis, Alice H.	Hammond	Lake
Davis, Carl M.	Valparaiso	Porter
Davis, D. F.	New Albany	Floyd
Davis, E. C.	Muncie	Delaware-Blackford
*Davis, George D.	Indianapolis	Marion
Davis, George H.	Union City	Randolph
Davis, J. A.	Flat Rock	Shelby
Davis, John A.	Indianapolis	Marion
Davis, J. M.	Indianapolis	Marion
Davis, John C.	Logansport	Cass
Davis, L. H.	Argos	Marshall
Davis, M. S.	Marion	Grant
Davis, Marvin R.	Columbus	Bartholomew
Davis, Neal	Lowell	Lake
*Davis, Parvin M.	New Albany	Floyd
Davisson, C. V.	Williamsport	Tippecanoe
Day, C. W.	Indianapolis	Marion
Day, George H.	New Albany	Floyd
Day, John	Indianapolis	Marion
*Day, W. D. C.	Seymour	Jackson
Deal, Eleanor H.	Indianapolis	Marion
*Dean, Donald I.	Rushville	Rush
Dean, Michael F.	Indianapolis	Marion
Deardorff, O. M.	Muncie	Delaware-Blackford
*Dearmin, R. M.	Indianapolis	Marion
*DeArmond, Murray	Indianapolis	Marion
Decker, H. B.	Terre Haute	Vigo
DeDario, L. M.	Elkhart	Elkhart
*Deems, M. B.	Huntington	Huntington
Deen, H. H.	Leavenworth	Crawford
Deer, Blan F.	Indianapolis	Marion
Deever, J. W.	Indianapolis	Marion
DeFoe, W. A.	Moorcland	Henry
DeFrees, Henry (H)	Nappance	Elkhart
*DeGrazia, E. J.	Valparaiso	Porter
DeLong, C. A.	Gary	Lake
DeLong, O. A. (H)	Elizabethtown	Bartholomew
De Motte, C. Bowen	Indianapolis	Marion
DeMotte, Jerome	Odon	Daviess-Martin
*DeMotte, R. A.	Bloomington	Monroe
DeNaut, J. F.	Knox	Starke
DeNaut, J. L.	Hamlet	Starke
Denman, R. D.	Helmer	Steuben
Denny, Charles W. (H)	North Madison	Jefferson
Denny, Edgar C.	Richmond	Wayne-Union
Denny, Frank T.	Ladoga	Montgomery
Denny, Fred C.	Madison	Jefferson
Denny, J. W.	Indianapolis	Marion
*Denton, Larkin D.	Greentown	Howard
*Denzer, E. K.	Evansville	Vanderburgh
Denzer, Wm. Oliver	Evansville	Vanderburgh
Deputy, E. M.	Dugger	Sullivan
*Deputy, Rolland	Indianapolis	Marion
Derbyshire, John E.	Van Buren	Grant
*Derhammer, G. L.	Brookston	Tippecanoe
Derian, M. H.	Gary	Lake
Dester, Herbert E.	Basna, India	Marion
DeTar, G. B.	Winslow	Pike
Detrick, H. W.	Hammond	Lake
*Dettloff, Frederick	Cloverdale	Putnam
*Deutsch, Wm.	Muncie	Delaware-Blackford
*DeWees, Dwight L.	Indianapolis	Marion
Dewey, Fred N. (H)	Elkhart	Elkhart
Dewey, George W.	Pine Village	Tippecanoe
DeWitt, C. H.	Valparaiso	Porter
Diamond, Leo	Marion	Grant
Diamondstein, Jos.	Calumet City, Ill.	Lake
*Dian, A. J.	Gary	Lake
Dian, Julia G. Kuzmitz	Gary	Lake
*Dick, Jack	Huntington	Huntington
Dickens, K. L.	Martinsville	Morgan
*Dickinson, Gordon A.	Petersburg	Pike
*Dickson, D. D.	Letts	Decatur
*Dieckman, Herbert S.	Evansville	Vanderburgh
Diehman, F. C.	Fulton	Fulton
*Dierolf, E. J.	Gary	Lake
Dieter, Wm. J.	Indianapolis	Marion
*Dietl, E. L.	South Bend	St Joseph
Dilley, Fred C.	Brazil	Clay
*Dillinger, George R.	French Lick	Orange
Dillman, Carl E.	Corydon	Harrison
*Dingle, Paul	Richmond	Wayne-Union
Dininger, W. S.	Winchester	Randolph
*Dittmer, J. E.	Kouts	Porter
Dittmer, S. E.	Kouts	Porter
Ditton, I. W.	Fort Wayne	Allen
Dixon, Rex	Anderson	Madison
Dobbins, A. O.	Valparaiso	Porter
Dobbins, Thomas	Evansville	Vanderburgh
*Dodds, James U.	Hartford City	Delaware-Blackford
Dodds, Wemple	Crawfordsville	Montgomery
Dollens, Claude	Oolitic	Lawrence
Dome, H. S.	Tell City	Perry
Donahue, C. M.	Carmel	Hamilton
*Donahue, G. R.	La Fayette	Tippecanoe
Donato, Albert M.	Indianapolis	Marion
Donchess, J. C.	Gary	Lake
Doneghy, Charles J.	East Chicago	Lake
*Donovan, S. J.	Michigan City	La Porte
Dorman, W. L.	Indianapolis	Marion
*Dorrance, T. O.	Bluffton	Wells
Doty, J. R.	Gary	Lake
Douglas, G. R.	Valparaiso	Porter
Dowell, E. H.	Rockville	Parke-Vermillion
Downey, L. J.	Vincennes	Knox
*Dragoo, Farrol	Middletown	Madison
*Drake, John C.	Anderson	Madison
Draper, M. H.	Fort Wayne	Allen
Draper, R. H.	Bremen	Marshall
Dreyer, Ralph W.	Knightstown	Henry
*Drohan, E. P.	Lawrenceburg	Dearborn-Ohio
Druley, G. N.	Kokomo	Howard
Dubois, C. C.	Warsaw	Kosciusko
Dubois, Franklin T.	Liberty	Wayne-Union
*Dubois, R. B.	West Point	Tippecanoe
*Duckworth, James W.	San Francisco, Calif.	Marion
Dudding, J. E.	Hope	Bartholomew
*Duemling, Arnold H.	Fort Wayne	Allen
*Duemling, W. W.	Fort Wayne	Allen
Dugan, Thomas J.	Indianapolis	Marion
Dugan, Wm. M.	Indianapolis	Marion
Dugdale, Richard (H)	South Bend	St. Joseph
Duggan, J. A.	South Bend	St. Joseph
Duke, B. E.	Decatur	Adams
Dukes, F. M.	Dugger	Sullivan
*Dukes, Richard	Dugger	Sullivan
Duncan, J. S.	Gary	Lake
Duncan, Wm. F. (H)	Aurora	Dearborn-Ohio
Dunlap, Harold	Indianapolis	Marion
Dunn, F. W.	Muncie	Delaware-Blackford
Dunning, L. M.	Indianapolis	Marion
Dupes, L. E.	Hobart	Lake
*Durkee, M. S.	Evansville	Vanderburgh
*Dusard, Joseph C.	Bedford	Lawrence
Dutchess, C. T.	Galveston	Cass
Dutton, H. H.	Martinsville	Morgan
DuVall, W. N.	Mishawaka	St. Joseph
Dyar, E. W.	Ossian	Wells
*Dyar, E. W., Jr.	Indianapolis	Marion
*Dycus, W. A.	Evansville	Vanderburgh
*Dyer, G. W.	Terre Haute	Vigo
*Dykhuizen, T. A.	Frankfort	Clinton
*Eades, Ralph C.	Valparaiso	Porter
Earp, E. B.	Indianapolis	Marion
Eastman, J. R., Jr.	Indianapolis	Marion
*Eaton, E. R.	Indianapolis	Marion
Eaton, L. D.	Princeton	Marion
Eaton, M. J.	La Fayette	Tippecanoe
Eberhart, L. L.	Angola	Steuben
Eberly, K. C.	Fort Wayne	Allen
Ebert, J. Wayne	Indianapolis	Marion
Eberwein, J. H.	Indianapolis	Marion
Eby, Ida L.	Goshen	Elkhart
Echternacht, A. P.	Indianapolis	Marion
Eckhart, G. G.	Marion	Grant
Edlavitch, B. M.	Fort Wayne	Allen
Edwards, Bernard	South Bend	St. Joseph
Edwards, E. T.	Vincennes	Knox
*Edwards, W. F.	New Albany	Floyd
Egan, B. W.	Logansport	Cass
*Egbert, H. L.	Indianapolis	Marion
Egbert, Robert	Martinsville	Morgan
Egbert, Roy	Indianapolis	Marion
Eggers, E. L.	Hammond	Lake
Eggers, H. W.	Hammond	Lake
Ehrich, W. S.	Evansville	Vanderburgh
Ehrman, C. D.	Rockport	Spencer
Eichel, S. J.	Evansville	Vanderburgh
Eichelberger, W. W.	Evansville	Vanderburgh
Eicher, F. I.	Wakarusa	Elkhart
*Eicher, Palmer	Decatur	Adams
Eidson, P. D.	San Fernando, Calif.	Marion
Eifert, E. E.	Loogootee	Daviess
*Eikenberry, H. W.	Peru	Miami
*Eisamen, C. L.	Indianapolis	Marion
Eisaman, Jack L.	Bluffton	Wells
Eisenberg, D. A.	Hammond	Lake
Eisenlohr, Eugene	Terre Haute	Vigo
Eisterhold, John A.	Evansville	Vanderburgh
Eley, L. D. (H)	Plymouth	Marshall
Elledge, Ray	Hammond	Lake
Ellerbrook, George E.	Vevay	Switzerland
Elliott, John C.	Guilford	Dearborn-Ohio
Elliott, L. A.	Elkhart	Elkhart
*Elliott, R. A.	Gary	Lake
Elliott, R. H.	Connersville	Fayette-Franklin
Ellis, Bert	Indianapolis	Marion
*Ellis, L. H.	North Salem	Boone
*Ellis, S. R.	Versailles	Ripley
Ellison, Alfred	South Bend	St. Joseph
Elsner, L. W.	Seymour	Jackson
Elsten, A. W.	Anderson	Madison
Elston, L. W.	Fort Wayne	Allen
Elston, Ralph W.	Fort Wayne	Allen
Emenhiser, Donald C.	New Haven	Allen
Emenhiser, John L.	New Haven	Allen
*Emery, Charles B.	Bedford	Lawrence
Emery, Charles H. (H)	Bedford	Lawrence
Emhardt, J. W. A.	Indianapolis	Marion
Emhardt, John T.	Indianapolis	Marion
*Emme, R. W.	Harlan	Allen
*Engel, E. L.	Evansville	Vanderburgh
*Engeler, J. E.	Indianapolis	Marion
*Engle, J. M.	Portland	Jay
*Engle, Russell B.	Farmland	Randolph
*Englebert, W. F.	Fort Wayne	Allen
Engleman, H. K.	Georgetown	Floyd
English, C. H. (H)	Fort Wayne	Allen
English, H. E.	Rensselaer	Jasper-Newton
English, H. M.	Gary	Lake

Name	City	County
English, J. P.	South Bend	St. Joseph
Ensminger, L. A.	Indianapolis	Marion
*Episcopo, A. R.	Mitchell	Lawrence
Epple, S. L.	Bristow	Perry
*Erdel, Milton W.	Frankfort	Clinton
Erehart, A. D.	Anderson	Madison
Erehart, M. G.	Huntington	Huntington
Ericksen, Lester G.	South Bend	St. Joseph
Ericson, H. L.	Windfall	Tipton
Ernst, H. C. W.	East Chicago	Lake
Erwin, H. G.	Lagrange	Lagrange
Eshleman, L. H.	Marion	Grant
Estel, G. A.	Madison	Jefferson
*Estlick, R. E.	Fort Wayne	Allen
Evans, R. M.	Russiaville	Howard
*Everly, Ralph	Indianapolis	Marion
Eviston, J. B.	Huntington	Huntington
Fackler, Volney N.	Richmond	Wayne-Union
Fagaly, A. T.	Lawrenceburg	Dearborn-Ohio
*Fagaly, W. J.	Lawrenceburg	Dearborn-Ohio
Faltin, Ladislaus	South Bend	St. Joseph
Farabee, Charles R.	North Judson	Starke
Fargher, F. M.	Michigan City	La Porte
Fargher, R. A.	La Porte	La Porte
Farnham, W. C.	South Bend	St. Joseph
Farnsworth, Samuel A.	La Porte	La Porte
*Farrell, J. T.	Indianapolis	Marion
Farver, M. A.	Middlebury	Elkhart
Fattie, John B. (H)	Anderson	Madison
*Faul, Henry J.	Evansville	Vanderburgh
*Fausset, C. Basil	Indianapolis	Marion
Feerer, Donald J.	Michigan City	La Porte
*Fender, A. H.	Worthington	Greene
*Ferguson, A. N.	Fort Wayne	Allen
Ferguson, C. E. (H)	Indianapolis	Marion
Ferguson, Wm. B.	Indianapolis	Marion
Ferrara, Donald W.	Peru	Miami
Ferrara, S. J.	Peru	Miami
*Ferree, John W.	Indianapolis	Marion
Ferrell, Jesse E.	Fortville	Hancock
*Ferrell, Mars B.	Fortville	Hancock
*Ferry, John L.	Whiting	Lake
Ferry, P. W.	Kokomo	Howard
Fessler, G. S.	Rising Sun	Dearborn-Ohio
Fichman, A. M.	Fort Wayne	Allen
*Fickas, Dallas	Evansville	Vanderburgh
Field, W. H.	Evansville	Vanderburgh
Filipek, W. J.	South Bend	St. Joseph
Fipp, August L.	Rome City	Noble
*Firestein, Ben	South Bend	St. Joseph
Fish, C. M.	South Bend	St. Joseph
Fish, Edson C.	South Bend	St. Joseph
Fisher, Albert	North Judson	La Porte
Fisher, C. N.	La Porte	La Porte
*Fisher, Henry	Marion	Grant
*Fisher, John E.	Clarksburg	Decatur
*Fisher, K. B.	Indianapolis	St. Joseph
*Fisher, Lawrence F.	South Bend	St. Joseph
Fisher, Pierre J.	Marion	Grant
Fisher, Walter S.	Columbus	Bartholomew
Fisk, Frank B.	Indianapolis	Marion
*Fitzgerald, Brice E.	Indianapolis	Marion
Fitzpatrick, H. W.	Elwood	Madison
*Fitzsimmons, E. L.	Evansville	Vanderburgh
*Flack, Russell A.	La Fayette	Tippecanoe
Flanagan, E. P.	Walton	Cass
Flannigan, H. F.	Lagrange	Lagrange
*Flanigan, M. B.	Frankton	Madison
*Fleetwood, R. A.	Nappanee	Elkhart
Fleischer, J. C.	East Chicago	Lake
Fleming, C. F.	Elkhart	Elkhart
*Fleming, Justus M.	Elkhart	Elkhart
Fletcher, Charles F.	Sunman	Dearborn-Ohio
*Flora, Joseph O.	Indianapolis	Marion
*Folek, J. K.	Princeton	Gibson
*Folkening, N. C.	Acton	Marion
Foltz, Lloyd E.	Brownsburg	Hendricks
Folz, C. J.	Evansville	Vanderburgh
Foreman, Harry L.	Indianapolis	Marion
Foreman, W. A.	Brookville	Fayette-Franklin
Forry, Frank	Indianapolis	Marion
Forster, N. K.	Hammond	Lake
Forsyth, D. H.	Terre Haute	Vigo
Fosbrink, E. L.	Elkhart	Elkhart
Fosler, D. W.	Indianapolis	Marion
Fouts, Joseph R.	English	Crawford
*Fouts, Paul J.	Indianapolis	Marion
Fox, C. Philip	Washington	Daviess-Martin
Fox, F. H.	Hammond	Lake
Fox, M. S.	Bicknell	Knox
Fox, R. H.	Bicknell	Knox
Foy, H. W.	Fort Wayne	Allen
Frank, J. R.	Valparaiso	Porter
Frank, L. L.	South Bend	St. Joseph
Franklin, Ernest J.	Indianapolis	Marion
Frankowski, Clementine	Whiting	Lake
*Frantz, Mount E.	Danville	Hendricks
Frasch, M. G.	La Fayette	Tippecanoe
Frash, De Von W.	South Bend	St. Joseph
Freed, James C.	Attica	Fountain-Warren
Freed, J. E.	Terre Haute	Vigo
Freeman, F. M.	Goshen	Elkhart
Freireich, Kal	South Bend	St. Joseph
French, Virgil	Riley	Vigo
French, Wm. G.	Evansville	Vanderburgh
Friedrich, L. M.	Hobart	Lake
Frith, Gladys D.	South Bend	St. Joseph
Frith, Louis G.	South Bend	St. Joseph
Fritsch, L. E.	Evansville	Vanderburgh
*Fromhold, Willis A.	Indianapolis	Marion
*Fry, Robert D.	Indianapolis	Marion
*Fuelling, James L.	Newburgh	Warrick
Fuller, R. W.	Anderson	Madison
*Fullerton, R. L.	Indianapolis	Marion
Funk, V. A.	Vincennes	Knox
Funkhouser, A. G.	Indianapolis	Marion
Funkhouser, Elmer	Indianapolis	Marion
Furgason, Paul C.	Indianapolis	Marion
Furniss, S. A.	Indianapolis	Marion
*Fuson, W. J.	Greencastle	Putnam
Fyfe, M. B.	Valparaiso	Porter
Gabe, Harry E. (H)	Indianapolis	Marion
Gabe, Wm. E.	Indianapolis	Marion
Gabhart, J. H.	Elberfield	Warrick
Gable, H. B.	Monticello	White
Gaddy, Euclid T.	Indianapolis	Marion
Galbreath, R. S.	Huntington	Huntington
Galbreth, J. P.	Burnettsville	White
Gall, Edward B.	(Memphis, Tenn.)	Grant
Gallup, Palmer R.	Michigan City	La Porte
*Gambill, Wm. D.	Indianapolis	Marion
Gannon, G. W.	Gary	Lake
Gante, H. W.	Anderson	Madison
*Ganz, Max	Marion	Grant
Garber, E. C.	Dunkirk	Jay
*Garber, J. Neill	Indianapolis	Marion
Garber, Paul A.	South Whitley	Whitley
Garceau, George J.	Indianapolis	Marion
*Gardner, Buckman	Indianapolis	Marion
Gardner, M. D.	Michigan City	La Porte
*Gardner, R. A.	Michigan City	La Porte
*Garfield, M. D.	Hobart	Lake
*Garling, L. C.	Muncie	Delaware-Blackford
Garner, H. A.	Hanna	La Porte
Garner, William	Indianapolis	Marion
*Garner, W. Stanley	Indianapolis	Marion
*Garner, Wm. H.	New Albany	Floyd
Garrett, John D.	Indianapolis	Marion
Garrettson, J. A.	Indianapolis	Marion
Garrison, Leon J.	Gas City	Grant
Garshwiler, W. P.	Indianapolis	Marion
Garton, H. W.	Fort Wayne	Allen
Gastineau, F. M.	Indianapolis	Marion
Gatch, W. D	Indianapolis	Marion
*Gates, George E.	South Bend	St. Joseph
Gauss, Julius H. P.	Indianapolis	Marion
*Gebres, R. W.	Shelbyville	Shelby
*Geider, Roy A.	Indianapolis	Marion
*Geiger, Dillon	Bloomington	Monroe
Geisel, E. E.	Gary	Lake
Geisinger, L. N.	Auburn	De Kalb
*Gentile, John P.	New Albany	Floyd
*George, Charles L.	Indianapolis	Marion
Gerrish, D. A.	Terre Haute	Vigo
Gerrish, W. D.	Clinton	Parke-Vermillion
*Gery, Richard E.	La Fayette	Tippecanoe
Gessler, W. F.	Fort Wayne	Allen
Gevirtz, M. B.	Hammond	Lake
Gibbs, Charles	Greenfield	Hancock
Gibbs, E. R.	Wilkinson	Hancock
Gibbs, Joseph W.	Danville	Hendricks
Gibson, J. J.	Alexandria	Madison
Gick, Herman	Indianapolis	Marion
Gifford, F. E.	Indianapolis	Marion
*Gilbert, Ivan	Terre Haute	Vigo
Gilkison, J. S.	Shoals	Daviess-Martin
Gill, B. P.	Mitchell	Lawrence
*Gill, D. D.	Greenfield	Hancock
Gillespie, C. E.	Seymour	Jackson
Gillespie, C. F.	Indianapolis	Marion
Gillespie, G. R.	Brownstown	Jackson
*Gillespie, J. E.	Indianapolis	Marion
Gillespie, J. F. (H)	Greencastle	Putnam
*Gilliatt, J. P.	Salem	Washington
*Gilliom, Luther A.	Indianapolis	Marion
Gillum, John R.	Terre Haute	Vigo
Gilman, M. M.	South Bend	St. Joseph
Gilmore, L. L.	Vincennes	Knox
Gilmore, R. A.	Michigan City	La Porte
Gingerick, C. M.	Liberty Center	Wells
Giordano, A. S.	South Bend	St. Joseph
Giorgi, Antonio (H)	Gary	Lake
Gipe, W. W.	Kokomo	Howard
*Gitlin, Max M.	Bluffton	Wells
*Gitlin, Wm. A.	Bluffton	Wells
*Glackman, J. C., Sr.,	Rockport	Spencer
*Glackman, J. C., Jr.,	Rockport	Spencer
*Gladstone, N. H.	Fort Wayne	Allen
Glaser, E. M.	Brookville	Fayette-Franklin
Glaser, R. E.	Brookville	Fayette-Franklin
Glass, R. L.	Indianapolis	Marion
Glendening, J. L.	Indianapolis	Marion
Glenn, Fred C.	Tell City	Perry
Glenn, L. F.	Ramsey	Harrison
Glick, O. E.	Kentland	Jasper-Newton
Glock, H. E.	Fort Wayne	Allen
*Glock, M. E.	Fort Wayne	Allen
*Glock, Wayne R.	Fort Wayne	Allen
Goar, C. S. (H)	Indianapolis	Marion
Gobbel, N. E.	English	Crawford
Goethals, Charles J.	Mishawaka	St. Joseph
*Goldstone, Adolph	Gary	Lake
Goldstone, Joseph	Gary	Lake
Goldthwaite, H. R.	Marion	Grant
*Good, R. P.	Kokomo	Howard
*Goodman, H. T.	Terre Haute	Vigo
Goodrich, Albert	Bloomington	Monroe
Goodwin, C. B. (H)	Kendallville	Noble
Goodwin, Caroline M.	Indianapolis	Marion
Goodwin, L. D.	Winslow	Pike
Goraczewski, Thaddeus	South Bend	St. Joseph
Gordin, Stanley	Connersville	Fayette-Franklin
Gordin, Stanton E.	Connersville	Fayette-Franklin
Gordon, J. L.	Wheeler	Porter
Gordon, J. M.	South Bend	St. Joseph
Goss, Anna	Madison	Jefferson
Goss, H. W.	Indianapolis	Marion
Gould, L. K.	Fort Wayne	Allen
Govorchin, Alex	East Chicago	Lake
Gracy, Alice	South Bend	St. Joseph
Graessle, Harold P.	Seymour	Jackson
Graf, John E.	Chicago, Ill.	Marion
Graham, A. B.	El Paso, Tex.	Marion
Graham, Cova R.	Bourbon	Marshall
Graham, P. C.	Columbus	Bartholomew
*Graham, Thomas	La Fayette	Tippecanoe
Gramling, J. J.	Indianapolis	Marion
*Grandstaff, F. L.	Decatur	Adams
*Graves, J. W.	Indianapolis	Marion
Graves, Orville M.	Princeton	Gibson
Gray, D. E.	Crown Point	Lake
Gray, Leon	Martinsville	Morgan
Gray, Paul M.	Huntington	Huntington
Grayston, F. W.	Huntington	Huntington
Grayston, Wallace S.	Huntington	Huntington

Name	City	County
Green, F. H., Jr.	Rushville	Rush
*Green, George F.	South Bend	St. Joseph
Green, John H.	North Vernon	Jennings
Green, Lowell M.	Rushville	Rush
Green, S. I.	St. Bernice	Parke-Vermillion
Green, Wm. L.	Pekin	Washington
Green, William Lennis	Kalamazoo, Michigan	Marion
Greene, Claude D.	Spencer	Owen
Greene, F. G.	Bloomingdale	Parke-Vermillion
*Greer, O. W.	Indianapolis	Marion
*Gregg, Albert F.	Connersville	Fayette-Franklin
Greist, H. W. (H)	Montieello	White
*Greist, John	Indianapolis	Marion
Griest, O. E.	La Fayette	Tippecanoe
Griffin, J. P.	La Porte	Starke
Griffis, V. C.	Richmond	Wayne-Union
Griffith, J. B.	Crawfordsville	Montgomery
*Griffith, James W.	Sheridan	Hamilton
Griffith, R. E.	Indianapolis	Marion
*Grillo, Donald	South Bend	St. Joseph
Grimes, J. H.	Danville	Hendricks
Grishaw, H. E.	Tipton	Tipton
*Griswold, W. R.	Indianapolis	Marion
Groman, H. C.	Hammond	Lake
*Gros, Hubert	Delphi	Carroll
*Gross, M. E.	Ladoga	Montgomery
Grossman, W. L.	North Vernon	Jennings
Grossniekle, Geo. W.	Elkhart	Elkhart
*Grosso, W. G.	East Chieago	Lake
Grove, E. G.	Shelbyville	Shelby
*Grzesk, Leo L.	Mishawaka	St. Joseph
*Gaild, C. J.	Garrett	De Kalb
Gustafson, G. W.	Indianapolis	Marion
Gutelins, C. B.	Indianapolis	Marion
Guthrie, F. C.	Anderson	Madison
Gutierrez, F. A.	Gary	Lake
Gatstein, Riehard R.	Kendallville	Noble
Gwaltney, B. C.	Fort Branch	Gibson
Gwaltney, L. F.	Roachdale	Putnam
Gwin, M. D.	Rensselaer	Jasper-Newton
Habegger, Myron L.	Berne	Adams
Habermel, John F.	New Albany	Floyd
Habieh, Carl	Indianapolis	Marion
Haek, E. C.	Hammond	Lake
Hadden, Claude E.	Indianapolis	Marion
Hade, Frederick L.	Bridgeport	Marion
Hadley, A. W.	La Fayette	Tippecanoe
Hadley, Harvey	Richmond	Wayne-Union
Hadley, Murray N.	Indianapolis	Marion
*Haffner, H G.	Fort Wayne	Allen
*Haggard, E. B.	Indianapolis	Marion
*Haggard, Gordon H.	Columbus	Bartholomew
Hagie, F. E.	Richmond	Wayne-Union
Hahn, E. V.	Indianapolis	Marion
Haley, Paul E.	South Bend	St. Joseph
*Hall, E. H.	Dunkirk	Delaware-Blackford
*Hall, Frank M.	La Fayette	Tippecanoe
*Hall, O. A.	Muncie	Delaware-Blackford
Hall, T. C.	Medaryville	Pulaski
Hall, Walter A.	New Albany	Floyd
*Hallam, F. T.	Indianapolis	Marion
*Halleck, H J.	Winamac	Pulaski
Haller, Thomas C. (Member by transfer from Illinois)	Williamsport	Fountain-Warren
Hamer, H. G.	Indianapolis	Marion
Hamilton, Alexander	Frankfort	Clinton
Hamilton, Allen	La Jolla, Calif.	Allen
Hamilton, E. E.	Dayton	Tippecanoe
Hamilton, Guy W.	Takoma Park, Md.	Jefferson
Hamilton, H. B.	Terre Haute	Vigo
Hamilton, J. R.	Mitchell	Lawrence
Hamilton, M. Luther	Newberry	Greene
Hamilton, O. G.	Bluffton	Wells
Hamilton, R. C.	East Chieago	Lake
*Hammersley, Geo. K.	Frankfort	Clinton
*Hammond, Keith	Paoli	Orange
*Hammond, Stanley M	Portland	Jay
*Hancock, John G.	Indianapolis	Marion
*Hane, R. L.	Fort Wayne	Allen
Hanna, T. A.	Indianapolis	Marion
*Hannebaum, O. P.	Indianapolis	Marion
*Hansell, R. M.	Indianapolis	Marion
Hansen, A. H.	Hammond	Lake
Harcourt, A. K.	Indianapolis	Marion
*Hardesty, K. C.	Fort Wayne	Allen
Hardin, W. E.	Ossian	Wells
Harding, Myron S.	Indianapolis	Marion
Hardwick, R S.	East Chicago	Lake
Hardy, Charles F.	Kendallville	Noble
Hardy, John J.	North Liberty	St. Joseph
Hare, E. H.	Indianapolis	Marion
Hare, John H.	Evansville	Vanderburgh
Harkeom, H. E.	St. Paul	Decatur
Harkness, R. G.	Terre Haute	Vigo
*Harmon, C. J.	Richmond	Wayne-Union
Harmon, Gladys H.	Richmond	Wayne-Union
Harmon, Vachelle E.	South Bend	St. Joseph
Harmon, Wayne	Lynn	Randolph
Harold, A. H.	Indianapolis	Marion
Harold, N. E.	Indianapolis	Marion
Harris, B. W.	Gary	Lake
Harris, Carl B.	Indianapolis	Marion
*Harris, L. E.	La Fayette	Tippecanoe
Harris, Paul N	Indianapolis	Marion
Harris, R. F.	Noblesville	Hamilton
*Harrison, B. L.	New Castle	Henry
Harrison, Wm. H. (H)	Kokomo	Howard
Harshman, L. P.	Fort Wayne	Allen
*Harshman, Martin L.	Colfax	Clinton
*Harstad, C.	Rockville	Parke-Vermillion
*Hart, L. Paul	Evansville	Vanderburgh
Hart, Robert B.	Columbus	Bartholomew
Hart, Wm. D.	Pendleton	Madison
Hartley, C. A., Jr.,	Evansville	Vanderburgh
*Hartz, F. Minton	Evansville	Vanderburgh
*Harvey, B. J.	La Fayette	Tippecanoe
Harvey, Harry C.	Fort Wayne	Allen
Harvey, R. J.	Whitestown	Boone
Harvey, Verne K.	Washington, D. C.	Marion
*Hasewinkle, A. M.	Fort Wayne	Allen
*Hash, John S.	Indianapolis	Marion
*Haslem, Ezra R.	Terre Haute	Vigo
*Haslem, John R.	Terre Haute	Vigo
Haslinger, C. J.	Indianapolis	Marion
Hassenmiller, Mart	West Baden	Orange
Hatfield, B. F.	Indianapolis	Marion
*Hatfield, N W.	Indianapolis	Marion
Hatfield, S. J.	Indianapolis	Marion
Hathaway, Clayton B.	Butler	De Kalb
*Hattendorf, A. P.	Fort Wayne	Allen
Hauss, A. P.	New Albany	Floyd
Havens, Edward D.	Cicero	Hamilton
Havens, Oscar	Cicero	Hamilton
*Havens, R. E.	Cicero	Hamilton
*Havice, Jay F.	Fort Wayne	Allen
Hawes, J. K.	Columbus	Bartholomew
*Hawes, M. E.	Hartsville	Bartholomew
*Hawk, James H.	Indianapolis	Marion
Hawkins, Z. T. (H)	Fairmount	Grant
*Hayes, J. J.	Fort Wayne	Allen
Hayes, T. R.	Muncie	Delaware-Blackford
Haymond, Joseph	Shelbyville	St. Joseph
*Hays, E. L.	Indianapolis	Marion
Hays, George R.	Richmond	Wayne-Union
Hazel, James T.	Freedom	Owen
Hazinski, R. T.	Griffith	Lake
*Headley, L. M.	Lebanon	Boone
Heald, Walter	West Lebanon	Fountain-Warren
Healy, Wm. F.	Evansville	Vanderburgh
Heard, Albert	Evansville	Vanderburgh
Heberer, J. M.	Evansville	Vanderburgh
*Heek, M. C.	Jasper	Dubois
*Hedde, E. L.	Logansport	Cass
*Hedgcock, R. A.	Frankfort	Clinton
Hedrick, R. M.	Gary	Lake
Heilman, W. C.	New Castle	Henry
Heinrichs, H. H.	Indianapolis	Marion
*Held, Albert H.	Huntingburg	Dubois
*Held, George A.	Jasper	Dubois
Heller, N. L.	Dunkirk	Jay
Heller, Oscar	Greenfield	Hancock
Helm, Karl G.	Shoals	Daviess-Martin
Helmen, H. W	South Bend	St. Joseph
*Helper, Morton	Evansville	Vanderburgh
Henderson, Arvin	Ridgeville	Randolph
*Henderson, R. A.	Muncie	Delaware-Blackford
Hendricks, John D.	Indianapolis	Marion
Hendricks, John W.	Indianapolis	Marion
Henley, Glenn	Fairmount	Grant
*Henry, Russell S.	Indianapolis	Marion
Henning, Carl	Hanover	Jefferson
Hepburn, C. K.	Indianapolis	Marion
Hepner, H. S.	Bloomington	Monroe
*Herbst, R R.	Hammond	Lake
Herd, Cloyn R.	Peru	Miami
*Herendeen, E. V.	Rochester	Fulton
*Heritier, Jules	Columbia City	Whitley
Herr, John W.	Mount Vernon	Posey
*Herrick, C. L.	Akron	Fulton
Herring, G. N	Piercetoon	Kosciusko
*Herrold, G. W.	La Fayette	Tippecanoe
Herschleder, Maxwell	Gary	Lake
Hershey, E. A.	Churubusco	Whitley
Hervey, Sam W. (H)	Fortville	Hancock
Herzer, C C.	Evansville	Vanderburgh
Hetherington, A. M.	Indianapolis	Marion
Hewins, Warren W.	Evansville	Vanderburgh
*Hewitt, M. I.	South Bend	St. Joseph
*Hewlett, Thomas H.	New Albany	Floyd
*Hiatt, R. L.	Richmond	Wayne-Union
*Hibner, Nolan A	Indianapolis	Marion
*Hickman, W. R.	Logansport	Cass
Hickman, Walter	Indianapolis	Marion
Hicks, H S.	Hammond	Lake
*Hicks, James M.	Huntington	Huntington
Hiestand, H. B.	Indianapolis	Jay
Hiestand, H. J.	Pennville	Jay
Higbee, Paul	Sullivan	Sullivan
Higgins, O. C	Lebanon	Boone
Hilbert, John W.	South Bend	St. Joseph
Hildebrand, W. O.	Topeka	Lagrange
Hill, H D.	Richmond	Wayne-Union
*Hill, H. E.	Muncie	Delaware-Blackford
*Hill, Paul G.	Cambridge City	Wayne-Union
*Hill, Robert	Muncie	Delaware-Blackford
Hill, T N.	Scottsburg	Scott
*Hilldrup, Don G.	Chicago, Ill.	Marion
*Hillery, J. L	Silver Lake	Kosciusko
Hillis, L. J.	Logansport	Cass
*Hillman, Marion W.	South Bend	St. Joseph
Hillman, W. H	South Bend	St. Joseph
Himler, James M.	Indianapolis	Marion
Hinchman, C. P.	Geneva	Adams
Hine, Ulis B.	Indianapolis	Marion
Hines, A. V.	Auburn	De Kalb
Hines, D. M.	Auburn	De Kalb
Hines, Don C.	Indianapolis	Marion
*Hippensteel, R. R.	Indianapolis	Marion
*Hippensteele, R. O.	Fremont	Steuben
Hisrich, L W.	Batesville	Ripley
Hochhalter, Marian	Logansport	Cass
Hodges, Fletcher	Indianapolis	Marion
Hodges, Wm. A.	Oaktown	Knox
Hodgin, Philip	Rockville	Parke-Vermillion
Hoeger, H. R.	Brookville	Fayette-Franklin
Hoetzer, Ruth M.	Fort Wayne	Allen
Hofferkamp, A. G.	New Albany	Floyd
*Hoffman, A. F.	Fort Wayne	Allen
Hoffman, Curtis R.	Richmond	Wayne-Union
Hoffman, Doris	Vincennes	Knox
Hoffman, R. V.	South Bend	St. Joseph
Hofmann, Andrew	Hammond	Lake
Hofmann, J. Wm.	Indianapolis	Marion
Hofmann, S. P.	Fort Wayne	Allen
Holdeman, Lillian	South Bend	St. Joseph

Name	City	County
*Holdeman, R. W.	South Bend	St. Joseph
Holladay, L. J.	La Fayette	Tippecanoe
*Holland, Chas. E.	Bloomington	Monroe
Holland, E. E.	Richmond	Wayne-Union
Holland, D. J.	Bloomington	Monroe
*Holland, Philip	Bloomington	Monroe
Holley, Albert C.	Attica	Fountain-Warren
Holliday, L. D.	Fairmont	Grant
Hollingsworth, A. A.	Indianapolis	Marion
Hollingsworth, Marshall P. (H)	Princeton	Gibson
Holloway, W. A.	Logansport	Cass
Holman, J. E.	Indianapolis	Marion
Holman, J. E., Jr.,	Indianapolis	Marion
*Holmes, Claude D.	Baltimore, Md.	Marion
*Holmes, G. W.	Crown Point	Lake
*Holmes, W. W.	Logansport	Cass
Holsinger, R. E.	Dayton, O.	Allen
Hooke, Sam W.	Noblesville	Hamilton
Hoover, D. A.	Terre Haute	Vigo
Hoover, J. J.	Terre Haute	Vigo
*Hoover, Peter B.	Boonville	Warrick
Hopkins, Lester H.	Batesville	Clark
*Hoppenwrath, W. M.	Elwood	Madison
Hoppenwrath, Wm. H.	Elwood	Madison
*Hord, L. J.	Shelbyville	Shelby
Hornaday, W. A.	Hammond	Lake
Horswell, R. G.	Bristol	Elkhart
Horton, Joseph E.	Earl Park	Benton
Horton, Robert	Indianapolis	Marion
House, J. W.	Bruceville	Knox
Houser, A. D.	Knox	St. Joseph
*Houser, W. W.	Monon	Tippecanoe
How, John T.	Lakeville	St. Joseph
How, Louis E.	Lakeville	St. Joseph
Howard, W. H.	Hammond	Lake
*Howell, R. D.	Indianapolis	Marion
Huber, Carl P.	Indianapolis	Marion
Huckleberry, Irvin	Salem	Washington
Hudson, Foster J.	Indianapolis	Marion
Huff, A. D.	Marion	Grant
Huffman, A. D.	South Bend	St. Joseph
Huffman, V. P.	South Whitley	Whitley
Hufnagel, C. J.	Richmond	Wayne-Union
Huggins, Victor S.	Evansville	Vanderburgh
Hughes, J. E.	Indianapolis	Marion
Hughes, L. M.	Paragon	Morgan
Hughes, W. F.	Indianapolis	Marion
Hull, A. W.	Elkhart	Elkhart
Hull, King L.	Bloomfield	Greene
Hulsman, L. F.	Shelbyville	Shelby
*Humphreys, John W.	Darlington	Montgomery
Hunn, M. F.	Elkhart	Elkhart
Hunt, Edgar J.	Terre Haute	Vigo
*Hunt, Gayle J.	Richmond	Wayne-Union
Hunt, Lee	Anderson	Madison
Hunt, W. B. (H)	Terre Haute	Vigo
Hunter, F. P.	La Fayette	Tippecanoe
Hunter, Lowell G.	Milan	Ripley
Huoni, J. S.	Jeffersonville	Clark
Hupe, Charles (H)	La Fayette	Tippecanoe
Hurley, Anson	Muncie	Delaware-Blackford
*Hurley, John R.	Daleville	Delaware-Blackford
Hursey, Virgil G.	Milford	Kosciusko
Hurst, E. M.	Cloverdale	Putnam
*Hurt, L. B.	Indianapolis	Marion
Hurt, Paul T.	Indianapolis	Marion
*Husted, Robert	Hammond	Lake
Hutcheson, W. R.	Greencastle	Putnam
Hutchings, B. M.	Terre Haute	Vigo
Hutchinson, B. M.	Mishawaka	St. Joseph
*Hutto, W. H.	Kokomo	Howard
Hyde, Carroll	South Bend	St. Joseph
*Hyman, Bernard	Indianapolis	Marion
*Hynes, Roy	Indianapolis	Marion
Iddings, J. W.	Crown Point	Lake
*Ikins, R. G.	La Fayette	Tippecanoe
*Ingalls, Clair	Washington	Daviess-Martin
Inlow, C. Fred	Shelbyville	Shelby
*Inlow, Herbert	Shelbyville	Shelby
Inlow, W. D.	Shelbyville	Shelby
Irey, P. R.	Plymouth	Marshall
Irwin, Seth	Summitville	Madison
Ish, E. A.	Waterloo	De Kalb
*Iske, Paul G.	Indianapolis	Marion
*Isler, N. C.	Jeffersonville	Clark
*Iterman, G. E.	New Castle	Henry
Ives, R. J.	Francesville	Pulaski
*Jackman, Abraham I.	Hammond	Lake
Jackson, F. E.	Indianapolis	Marion
*Jackson, J. K.	Aurora	Dearborn-Ohio
Jackson, J. L.	Indianapolis	Marion
Jackson, J. M.	Aurora	Dearborn-Ohio
Jackson, J. W.	Indianapolis	Marion
Jackson, Katherine E.	Cincinnati, O.	Switzerland
Jacobs, H. A.	Indianapolis	Marion
Jacobs, L. G.	Indianapolis	Marion
Jaeger, A. S.	Indianapolis	Marion
James, N. A.	Tell City	Perry
Jaquith, O. S.	Indianapolis	Marion
*Jay, Arthur N.	Indianapolis	Marion
Jeffries, K. I.	Indianapolis	Marion
Jenkins, J. M. (H)	Cortland	Jackson
Jenkins, W. O. (H)	Indianapolis	Vigo
Jenkison, W. E.	Mount Vernon	Posey
Jennings, Frank	Oaklandon	Marion
Jewell, Earl B.	Logansport	Cass
Jewett, L. E.	Wabash	Wabash
Jewett, Robert E.	Indianapolis	Wabash
Jinks, C. H.	Indianapolis	Marion
*Jobes, James E.	Indianapolis	Marion
Jobes, N. E.	Indianapolis	Marion
Johns, D. R.	East Chicago	Lake
Johns, Elmer D.	Zionsville	Boone
Johnson, C. E.	Rensselaer	Jasper-Newton
Johnson, E. N.	Sandborn	Knox
Johnson, Earl E.	Covington	Fountain-Warren
Johnson, F. D.	Waynetown	Montgomery
Johnson, G. C.	Evansville	Vanderburgh
Johnson, J. J.	Milltown	Crawford
Johnson, M. H. C.	Vincennes	Knox
Johnson, Paul S.	Richmond	Wayne-Union
*Johnson, R. B.	Butlerville	Jennings
*Johnson, S. L.	Evansville	Vanderburgh
*Johnson, Thomas W.	Indianapolis	Marion
Johnson, W. A.	Perrysville	Fountain-Warren
Johnson, W. H.	Alexandria	Madison
Johnson, Wm. F.	Indianapolis	Marion
*Johnston, D. D.	Fort Wayne	Allen
Johnston, R. G.	Huntington	Huntington
Jolly, W. P.	Richland	Spencer
Jones, Albert T.	Pendleton	Madison
Jones, Clifford M.	Whiting	Lake
Jones, D. D.	Berne	Adams
Jones, David E.	Indianapolis	Marion
Jones, E. K.	South Bend	St. Joseph
Jones, E. S.	Hammond	Lake
*Jones, Francis P.	Indianapolis	Marion
Jones, George	Wanamaker	Marion
Jones, H. E.	Anderson	Madison
Jones, H. H.	Salamonia	Jay
*Jones, Paul A.	Lyons	Greene
Jones, R. B.	La Porte	La Porte
Jones, Rilus E.	Clayton	Hendricks
Jones, Thomas M.	Anderson	Madison
Jones, W. W.	Frankfort	Clinton
Jordan, Cecil	Denver	Miami
*Jordan, Leo E.	Lynn	Randolph
Jordan, Minnetta Flinn	Wabash	Wabash
Josif, Lazar	East Chicago	Lake
*Kahan, H. L.	Gary	Lake
*Kahler, M. V.	Indianapolis	Marion
*Kalb, Everett L.	Indianapolis	Marion
Kamm, Bernard A.	South Bend	St. Joseph
Kamman, G. H.	Seymour	Jackson
Kamman, H. H.	Columbus	Bartholomew
*Kammen, Leo	Indianapolis	Marion
Kammer, Adolph G.	East Chicago	Lake
Kan, A. M.	Gary	Lake
Kannel, J. W.	Fort Wayne	Allen
Karsell, W. A.	Indianapolis	Marion
Kauffman, H. M.	Evansville	Vanderburgh
*Kauffman, Sidney A.	Indianapolis	Marion
Kay, Oran	Spencer	Owen
*Keefe, Thomas L.	Logansport	Cass
*Keeling, F. E.	Portland	Jay
Keeling, J. E. (H)	Waldron	Shelby
Keenan, R. L.	Indianapolis	Marion
Keene, T. V.	Indianapolis	Marion
Keever, C. H.	Indianapolis	Marion
Keiser, V. D.	Indianapolis	Marion
Keith, F. E.	Hollandsburg, Ohio	Wayne-Union
Keller, F. G.	Alexandria	Madison
*Kelly, Don E.	Indianapolis	Marion
Kelly, F. H.	Argos	Marshall
Kelly, J. F.	Indianapolis	Marion
Kelly, J. N.	La Porte	La Porte
*Kelly, W. C.	Indianapolis	Marion
Kelly, W. R.	Goshen	Elkhart
Kelly, Walter F.	Indianapolis	Marion
Kelsey, A. J.	Monterey	Pulaski
Kelsey, L. E.	Kewanna	Fulton
Kelsey, Robert M.	La Porte	La Porte
*Kemp, John T.	Michigan City	La Porte
*Kemp, W. A.	Connersville	Fayette-Franklin
Kemper, A. T.	Muncie	Delaware
Kemf, G. F.	Indianapolis	Marion
*Kendall, F. M.	Alexandria	Madison
*Kendrick, Frank J.	Gary	Lake
*Kendrick, W. M.	Indianapolis	Marion
Kennedy, Eva	Camden	Carroll
Kennedy, H. F.	Indianapolis	Marion
Kennedy, R. O.	Rushville	Rush
Kennedy, Samuel (H)	Shelbyville	Shelby
Kennedy, W. U.	New Castle	Henry
Kennington, D. J.	Michigan City	La Porte
Kent, J. A.	Mulberry	Clinton
*Kenyon, C. E.	Cambridge City	Wayne-Union
Kepler, R. W.	La Porte	La Porte
Kercheval, C. F.	Indianola, Miss.	Lagrange
Kercheval, J. M.	Indianola, Miss.	Lagrange
Kern, C. B.	Muncie	Delaware-Blackford
*Kern, C. G.	Lebanon	Boone
Kerr, A. R.	Attica	Fountain-Warren
Kerr, Harry R.	Indianapolis	Marion
Kerrigan, J. J. (H)	Michigan City	La Porte
*Keserie, N. E.	Gary	Lake
Ketcham, Jane M.	Indianapolis	Marion
Ketcham, John S.	Rossville	Clinton
Kidd, James G.	Roann	Wabash
Kidder, J. J.	Salamonia	Jay
*Kidder, Orva T.	Fort Wayne	Allen
*Kilgore, Byron	Danville	Hendricks
Kilgore, F. T.	Yorktown	Delaware-Blackford
Killough, Aimee R.	Michigan City	La Porte
*Kilmer, John H.	Fort Wayne	Allen
Kim, Young D.	Beech Grove	Marion
Kimball, Glen D.	Marion	Grant
Kime, E. N.	Indianapolis	Marion
Kime, J. T. (H)	Petersburg	Pike
*Kimmich, John M.	Kokomo	Howard
Kindell, H. D.	New Richmond	Montgomery
King, B. A.	Anderson	Madison
King, E. A.	Evansville	Allen
King, Jack	Vevay	Switzerland
*King, Joseph W.	Anderson	Madison
King, M. O.	Rochester	Fulton
*King, P. C.	Swayzee	Grant
King, Wm. E.	Indianapolis	Marion
Kingsbury, J. K.	Indianapolis	Marion
Kinnaman, H. A.	Crawfordsville	Montgomery
*Kinneman, R. E.	Greenfield	Hancock
Kinsey, Joseph H.	Richmond	Wayne-Union
*Kirch, L. N.	Indianapolis	Marion
Kirkpatrick, A. M. (H)	Columbus	Bartholomew
*Kirshman, F. E.	Muncie	Delaware-Blackford
*Kirtley, J. M.	Crawfordsville	Montgomery
Kiser, E. F.	Indianapolis	Marion
*Kissinger, K. L.	Angola	Steuben
*Kistler, James J.	La Porte	La Porte

Name	City	County
*Kistner, Arthur W.	Elkhart	Elkhart
Kistner, John W.	Elkhart	Elkhart
*Kitterman, Harry E.	Indianapolis	Marion
*Klain, B. V.	Indianapolis	Marion
Klein, Else	South Bend	St. Joseph
Klein, H. P.	Fort Branch	Gibson
Kleindorfer, R. L.	Evansville	Vanderburgh
Kleinman, F. J.	Hebron	Porter
Kleplinger, H. E.	La Fayette	Tippecanoe
Klinger, Maurice O.	Plymouth	Marshall
Knapp, A. B. (H)	Vincennes	Knox
Knapp, Arthur L.	South Bend	St. Joseph
Knepple, L. R.	Kokomo	Howard
Knode, Kenneth T.	South Bend	St. Joseph
Knoefel, Peter	Louisville, Ky.	Vigo
Knott, Harry	Plymouth	Marshall
*Kobrak, H. F.	Gary	Lake
*Korbin, M. W.	Gary	Lake
*Koehler, Elmer G.	Elkhart	Elkhart
Kohlstaedt, George	Indianapolis	Marion
Kohlstaedt, K. G.	Indianapolis	Marion
Kohne, G. J.	Decatur	Adams
Kolettis, George J.	Gary	Lake
Komoroske, J. E.	East Chicago	Lake
Koons, Karl M.	Indianapolis	Marion
*Kopcha, Joseph E.	Whiting	Lake
Kopp, O. A.	Anderson	Madison
*Korn, Jerome M.	Gary	Marion
Kornafel, L. H.	Indianapolis	Marion
*Kraft, Bennett	Indianapolis	Marion
Kraft, Haldon C.	Noblesville	Allen
Kraft, R. W.	Hobart	Lake
Kramer, A. A.	South Bend	St. Joseph
Kraning, Kenneth	Kewanna	Fulton
Kratzer E. F.	Wawpecong	Miami
Kremer, N. A.	Madison	Jefferson
*Kress, George L.	Warsaw	Kosciusko
Kretsch, R. W.	Hammond	Lake
Krieger, George M.	Michigan City	La Porte
Krueger, Frederick W.	Richmond	Wayne-Union
Kruse, E. H.	Fort Wayne	Allen
Kruse, Walter E.	Fort Wayne	Allen
Kubik, Francis J.	La Porte	Marion
*Kudele, L. T.	Whiting	Lake
Kuhn, Hedwig S.	Hammond	Lake
Kuhn, Hugh A.	Hammond	Lake
*Kuhn, R. W.	Wilkinson	Hancock
Kunkler, Joseph	Terre Haute	Vigo
Kunkler, Wm. C.	Terre Haute	Vigo
Kuntz, Herman W.	Indianapolis	Marion
Kurtz, Fred B.	Indianapolis	Marion
Kurtz, Philip L.	Indianapolis	Marion
*Kwitny, I. J.	Indianapolis	Marion
*LaBier, C. Russell	Terre Haute	Vigo
LaBier, Clarence R.	Terre Haute	Vigo
LaBonte, Napoleon	Indianapolis	Marion
*Ladig, Donald S.	Fort Wayne	Allen
*LaDine, C. B.	Indianapolis	Marion
LaDuron, Jules	Muncie	Delaware-Blackford
*LaFata, F. Paul	Gary	Lake
Laird, L. A.	North Webster	Kosciusko
Lally, B. V.	Evansville	Vanderburgh
Lamb, E. B.	Indianapolis	Marion
Lamb, Russell	Indianapolis	Marion
*Lamber, C. K.	Indianapolis	Marion
Lambert, J. L.	Brazil	Clay
Lambright, Simeon (H)	Indianapolis	Fountain-Warren
*Lamey, James L.	Anderson	Madison
*Lamey, P. T.	Anderson	Madison
Lane, W. H. (H)	Angola	Steuben
*Lane, Wm. H.	South Bend	St. Joseph
*Lang, Joseph E.	South Bend	St. Joseph
Lang, Shirley C.	Evansville	Vanderburgh
Langdon, H. K.	Indianapolis	Marion
*Langenbahn, C. J.	South Bend	St. Joseph
Langsdon, Fred	Gaston	Delaware-Blackford
*Lansford, John	Redkey	Jay
Lapenta, V. A.	Indianapolis	Marion
*Lapid, G. G.	East Chicago	Lake
Larkin, Bernard J.	Indianapolis	Marion
*Larmore, J. L.	Muncie	Delaware-Blackford
Larrabee, W. H.	New Palestine	Hancock
Larrison, G. D.	Morocco	Jasper-Newton
Larson, G. O.	La Porte	La Porte
*LaSalle, R. M.	Wabash	Wabash
Laubscher, C. S.	Evansville	Vanderburgh
*Laubscher, Clarence	Evansville	Vanderburgh
Landeman, W. A.	Elwood	Madison
Lauer, A. J.	Whiting	Lake
Lauer, D. B.	Dana	Parke-Vermillion
Laval, Wm. (H)	Evansville	Vanderburgh
Lavengood, R. W.	Marion	Grant
Lawler, George F.	Indianapolis	Marion
*Lawrence, Joseph C.	Evansville	Vanderburgh
Laws, H. J.	La Fayette	Tippecanoe
Laws, Kenneth F.	La Fayette	Tippecanoe
Lawson, I. H.	Kendallville	Noble
Lawson, W. T. (H)	Danville	Hendricks
Lazo, V. R.	Wheatland	Knox
Leasure, J. K.	Indianapolis	Marion
Leatherman, C. A.	Muncie	Delaware-Blackford
Leatherman, H. L.	Indianapolis	Marion
Leckrone, M. E.	Rochester	Fulton
LeClaire, Henri	Martinsville	Morgan
Lee, A. H.	Terre Haute	Vigo
*Lee, Glen Ward	Richmond	Wayne-Union
Lee, John M.	Dayton, Ohio	Rush
*Leffel, James M.	Indianapolis	Marion
*Lehmberg, O. F.	Columbia City	Whitley
*Leich, Charles F.	Evansville	Vanderburgh
Leiter, Arthur	Columbia City	Whitley
Lemmon, B. E.	Indianapolis	Marion
Lemon, Herbert K.	Goshen	Elkhart
*Lenk, George G.	Fort Wayne	Allen
Leonard, Henry S.	Indianapolis	Marion
*Leser, R. U.	Indianapolis	Marion
*Leslie, Ermil	Evansville	Vanderburgh
*Lett, Emory B.	Loogootee	Daviess-Martin
Levering, Guy P.	La Fayette	Tippecanoe
*Levi, Leon	Indianapolis	Marion
Levin, Eli	East Chicago	Lake
Lewis, J. R.	Indianapolis	Marion
*Lewis, James F.	Liberty	Wayne-Union
Lewis, Robert J.	Indianapolis	Marion
*Libbert, E. L.	Lawrenceburg	Dearborn-Ohio
*Libnoch, Casimir	South Bend	St. Joseph
*Lichtenberg, Melvin	Indianapolis	Marion
Lieberman, Arnold L.	Gary	Lake
Life, Homer	New Castle	Henry
Lill, J. C.	Fort Wayne	Allen
Lindenmuth, E. Oscar	Indianapolis	Marion
Lindquist, N. S.	South Bend	St. Joseph
*Lindsay, H. B.	Washington	Daviess-Martin
Line, H. E.	Chili	Miami
Lingeman, Byron N.	Crawfordsville	Montgomery
Lingeman, E. L.	Indianapolis	Marion
Link, Goethe	Indianapolis	Marion
Linn, E. E.	La Porte	La Porte
Linton, C. D.	Walkerton	St. Joseph
Linton, C. E.	Medaryville	Pulaski
*List, Harold E.	Marion	Grant
Littell, J. J.	Indianapolis	Marion
Little, J. A.	Evanston, Ill.	Cass
Little, John W.	Indianapolis	Marion
*Little, John W., Jr.	Indianapolis	Marion
Little, W. D.	Indianapolis	Marion
*Litzenberger, S. W.	Anderson	Madison
Loehry, R. L.	Indianapolis	Marion
*Loehr, W. M.	Indianapolis	Marion
*Loewenstein, W. L.	Terre Haute	Vigo
Logan, A. R.	Petersburg	Pike
Logan, F. W.	Mishawaka	St. Joseph
*Logan, Jesse R.	Evansville	Vanderburgh
Lohman, Maurice	Fort Wayne	Allen
Lomax, Claude C.	Indianapolis	Spencer
Long, J. A.	Anderson	Madison
*Long, Leonard	Bluffton	Wells
*Long, Paul L.	Anderson	Madison
Long, W. H.	Indianapolis	Marion
Loomis, DeWitt	Boonville	Warrick
Loomis, J. F. (H)	Marion	Grant
Loomis, N. S.	Indianapolis	Marion
Loop, Floyd A.	La Fayette	Tippecanoe
Loop, Frederick A.	La Fayette	Tippecanoe
Lord, G. C.	Indianapolis	Marion
*Lorenty, T. B.	Gary	Lake
*Loring, Mark L.	Valparaiso	Porter
*Loudermilk, J. L.	Indianapolis	Marion
*Love, George N.	Connersville	Fayette-Franklin
Love, John R.	Terre Haute	Vigo
Loving, J. B.	New Goshen	Vigo
*Luckett, C. L.	Boonville	Warrick
Luckett, Coen L.	Terre Haute	Vigo
Luckey, H. A.	Wolf Lake	Noble
Luckey, R. C.	Wolf Lake	Noble
Ludwig, Oscar D.	Indianapolis	Marion
Lukemeyer, E. G. (H)	Huntingburg	Dubois
Lukemeyer, L. C.	Huntingburg	Dubois
Lukemeyer, St. John	Jasper	Dubois
Lukenbill, Emery D.	Indianapolis	Marion
*Lund, L. C.	Argos	Marshall
*Lundt, Milo O.	Elkhart	Elkhart
Lung, B. D.	Kokomo	Howard
Lutes, D. L.	Dublin	Wayne-Union
Lutz, Georgianna	Gary	Lake
Luzadder, J. E.	Bloomington	Monroe
Luzadder, J. E., Jr.	New Carlisle	St. Joseph
Lybrook, D. E.	Young America	Cass
Lynch, Harold D.	Evansville	Vanderburgh
Lynch, Otho R.	La Fayette	Tippecanoe
Lynch, O. R.	Marengo	Crawford
Lynch, Paul	Evansville	Vanderburgh
Lynn, F. M.	Peru	Miami
Lyons, Charles	Parker	Delaware-Blackford
Lyons, R. E., Jr.	Bloomington	Monroe
MacBeth, Albert H. (H)	Fort Wayne	Allen
MacDonald, J. A.	Indianapolis	Marion
Mace, E. E.	New Palestine	Hancock
Macer, Clarence G.	Evansville	Vanderburgh
Mac Gregor, D. E.	Indianapolis	Marion
*Machlan, H. F.	Indianapolis	Marion
Machledt, J. H.	Whiteland	Johnson
*MacKenzie, Pierce	Evansville	Vanderburgh
Mackey, C. G.	Culver	Marshall
Mackey, Harry S.	Indianapolis	Marion
*Macy, George	Columbus	Bartholomew
Magennis, H. L.	Indianapolis	Marion
*Mahoney, Charles L.	Terre Haute	Vigo
Mahuron, Boyd L.	Greensburg	Decatur
Majsterek, S. L.	Gary	Lake
*Malcolm, Russell	Richmond	Wayne-Union
Malmstone, F. A.	Griffith	Lake
Malone, L. A.	Terre Haute	Vigo
*Malott, Fred	Converse	Miami
Malouf, S. D.	Peru	Miami
*Malstaff, C. M.	South Bend	St. Joseph
*Maly, C. H.	Indianapolis	Marion
Manion, Marlow W.	Indianapolis	Marion
*Manley, C. N.	Rising Sun	Dearborn-Ohio
Mann, Mortimer	Indianapolis	Marion
*Mansfield, Max R.	Indianapolis	Marion
Maple, J. B.	Sullivan	Sullivan
Marchand, Austin F.	Haubstadt	Gibson
Marchand, Edwin V.	Haubstadt	Gibson
*Marchant, C. H.	Bloomington	Monroe
Marcus, M. C.	Gary	Lake
*Maris, Lee J.	Attica	Fountain-Warren
Markel, I. J.	Elkhart	Elkhart
Markley, H. W.	Rochester	Fulton
*Marks, H. H.	Evansville	Vanderburgh
Marks, Ora L.	East Chicago	Lake
Marsh, Chester A.	Hagerstown	Wayne-Union
*Marsh, George	Otterbein	Benton
*Marsh, J. P.	Blountsville	Henry
*Marshall, A. L.	Indianapolis	Marion
Marshall, Augustus L.	Indianapolis	Marion
Marshall, B. W.	Nashville	Bartholomew
Marshall, C. R.	Indianapolis	Marion
Marshall, George	Bourbon	Marshall
Marshall, L. C.	Mount Summit	Henry

Name	City	County
Marshall, W. J.	Springfield, Mo.	Howard
Martin, C. E.	Lynn	Randolph
Martin, F. V. (H)	Michigan City	La Porte
Martin, Frank D.	Bedford	Lawrence
*Martin, Floyd S.	Goshen	Elkhart
Martin, Guy	Seymour	Jackson
Martin, H. G.	La Fayette	Tippecanoe
*Martin, L. H.	Indianapolis	Marion
Martin, W. B.	La Porte	La Porte
Martin, Will J.	Kokomo	Howard
*Mason, Everett E.	Evansville	Vanderburgh
Mason, L. R.	Muncie	Delaware-Blackford
*Mast, Karl F.	Fort Wayne	Allen
*Masters, J. M.	Indianapolis	Marion
Masters, R. J.	Indianapolis	Marion
Mather, J. W.	East Gary	Lake
Mathews, W. C.	Kentland	Jasper-Newton
Mathys, Alfred	Mauckport	Harrison
*Matthew, J. R.	Knox	Starke
*Matthew, W. B.	Indianapolis	Marion
Matthews, B. J.	Indianapolis	Marion
Matthews, Chas. B.	Hammond	Lake
Matthews, D. W.	North Vernon	Jennings
*Mattox, Don M.	Terre Haute	Vigo
Maurer, J. F.	Brazil	Clay
Mavity, D. E.	Fowler	Benton
Maxwell, J. B. (H)	Logansport	Cass
May, Frank	Palmyra	Harrison
May, George A.	Madison	Jefferson
May, R. M.	Hobart	Lake
McAlexander, R. O. (H)	Indianapolis	Marion
*McArdle, Edward G.	Fort Wayne	Allen
McAuliffe, D. L. (H)	North Vernon	Jennings
*McBane, John	Fortville	Hancock
McBride, E. C.	Terre Haute	Vigo
McBride, James S.	Indianapolis	Marion
McBride, Noel S.	Terre Haute	Vigo
McCabe, J. E.	Otterbein	Benton
*McCabe, Theodore E.	Fort Wayne	Allen
McCallum, Joseph T. C.	Indianapolis	Marion
McCarthy, D. J.	Indianapolis	Marion
McCarthy, F. G.	Terre Haute	Vigo
McCarthy, Jeremiah A.	Whiting	Lake
*McCarty, Virgil	Princeton	Gibson
McCaskey, C. H.	Indianapolis	Marion
McCaskey, G. H.	Winamac	Pulaski
McCay, O. L.	Romney	Tippecanoe
McClain, Marvin	Scottsburg	Scott
McClelland, D. C.	La Fayette	Tippecanoe
McClure, S. E.	Monon	Tippecanoe
*McConnell, Wm. C.	Sunman	Ripley
*McCool, J. H.	Evansville	Vanderburgh
McCool, W. E.	Evansville	Vanderburgh
McCord, Carl B.	Veedersburg	Fountain-Warren
McCormick, C. O.	Indianapolis	Marion
McCormick, H. D.	Vincennes	Knox
*McCormick, W. C.	Terre Haute	Vigo
McCown, P. E.	Indianapolis	Marion
McCoy, Roy R.	Fort Wayne	Allen
McCracken, J. O.	Montgomery	Daviess-Martin
McCulloch, C. B.	Indianapolis	Marion
McCullough, J. Y.	New Albany	Floyd
McDaniel, F. P.	Atlanta	Hamilton
McDevitt, D. R.	Indianapolis	Marion
McDonald, A. C. (H)	Warsaw	Kosciusko
McDonald, E. C.	Indianapolis	Marion
*McDonald, J. D.	Evansville	Vanderburgh
*McDonald, R. M.	Mishawaka	St. Joseph
McDonald, V. G.	Anderson	Madison
*McDowell, George A.	Fort Wayne	Allen
McDowell, M. A.	Logansport	Cass
McDowell, Walter	Evansville	Vanderburgh
*McElroy, J. S.	New Castle	Henry
*McElroy, R. S.	Princeton	Gibson
*McEwen, J. W.	Terre Haute	Vigo
*McFadden, James M.	Fort Wayne	Allen
*McFall, V. F.	Anderson	Madison
McFarlin, J. T. (H)	Williams	Lawrence
McGaughey, W. M.	Greencastle	Putnam
McGuire, D. F.	East Chicago	Lake
McIlwain, Eleanor	Marion	Grant
McIlwain, Robert	Marion	Grant
McIndoo, R. E.	Kokomo	Howard
McIntyre, Charles J.	Indianapolis	Marion
*McIntyre, J. M.	Indianapolis	Marion
McKay, J. D.	Marion	Grant
McKean, T. J.	Montpelier	Adams
McKee, H. N.	Elkhart	Elkhart
McKee, H. S.	Greensburg	Decatur
*McKeeman, D. H.	Fort Wayne	Allen
McKeeman, L. S.	Fort Wayne	Allen
*McKinley, A. D.	Indianapolis	Marion
*McKinney, D. H.	La Fayette	Tippecanoe
McKinney S. L.	Huntingburg	Dubois
*McKittrick, Jack	Washington	Daviess-Martin
McKittrick, Wm. O.	Washington	Daviess-Martin
*McLaughlin, C. P.	Pendleton	Madison
*McLaughlin, James R.	Logansport	Cass
McMeel, J. E.	South Bend	St. Joseph
McMichael, F. J.	Gary	Lake
*McMichael, R. M.	Muncie	Delaware-Blackford
McMillan, F. G.	Indianapolis	Marion
McMurtry, L. K.	Evansville	Vanderburgh
McNabb, G. B.	Carthage	Rush
*McNaughton, L. M.	Petersburg	Pike
McNaull, Charles (H)	Indianapolis	Marion
McNeely, M. J.	Dillsboro	Dearborn-Ohio
McPherson, S. L. (H)	Washington	Daviess-Martin
McQueen, William	Jamestown, N. C.	Marion
*McQuiston, R. J.	Indianapolis	Marion
McVey, C. A.	Hammond	Lake
McWilliams, W. B.	Liberty	Wayne-Union
Mead, C. H.	Bluffton	Wells
*Meade, W. W.	Bicknell	Knox
Medealf, N. L.	Lamar	Spencer
*Mengenhardt, D. S.	Indianapolis	Marion
Mehl, Rudolph A.	Evansville	Vanderburgh
Meikle, Louise J.	W. Lafayette	Tippecanoe
Meiks, Lyman T.	Indianapolis	Marion
Meiner, J. A.	Kokomo	Howard
Meiser, Robert	Huntington	Huntington
Meister, Doris	Anderson	Madison
*Melloh, A. F.	Indianapolis	Marion
*Mendenhall, C. D.	Indianapolis	Marion
Mendenhall, Edgar	Fort Wayne	Allen
Mendenhall, W. E.	Indianapolis	Marion
Mentendick, M. H.	Indianapolis	Marion
Mercer, Samuel R.	Fort Wayne	Allen
Merchant, Raymond	Lake Village	Jasper-Newton
*Meredith, E. J.	Richmond	Wayne-Union
*Mericle, Earl	Indianapolis	Marion
*Merrell, B. M.	Brownstown	Jackson
Merrell, Paul	Indianapolis	Marion
Mertz, H. O.	Indianapolis	Marion
Mervis, F. H.	East Chicago	Lake
Messer, F. W.	Kendallville	Noble
Metcalf, George B.	Anderson	Madison
Metcalf, H. C.	Connersville	Fayette-Franklin
Metcalfe, G. E.	South Bend	St. Joseph
Meyer, Herman A.	Fort Wayne	Allen
Meyer, K. T.	Evansville	Vanderburgh
*Meyer, O. L.	Portland	Jay
Meyer, R. C.	Vincennes	Knox
*Michaelis, S. C.	Fort Wayne	Allen
Michaels, J. F.	Edinburg	Daviess-Martin
Micheli, A. J.	Indianapolis	Marion
Middleton, H. N.	Indianapolis	Madison
Mikesch, W. H.	South Bend	St. Joseph
Miley, W. M.	Anderson	Madison
Miller, A. G.	Hobart	Lake
*Miller, Carl G.	Fort Wayne	Allen
Miller, Charles A.	Princeton	Gibson
Miller, D. B.	Terre Haute	Vigo
Miller, Donald L.	Remington	Cass
Miller, E. H.	Valparaiso	Porter
Miller, H. A.	Marion	Grant
*Miller, H. D.	Shelbyville	Shelby
Miller, H. L.	West Baden	Orange
Miller, Harold E.	Seymour	Jackson
Miller, J. Don	Indianapolis	Marion
Miller, L. R.	Winslow	Pike
*Miller, M. E.	Goshen	Elkhart
Miller, Mahlon F.	Fort Wayne	Allen
Miller, Milton	Evansville	Vanderburgh
Miller, Milo	South Bend	St. Joseph
Miller, Minor	Evansville	Vanderburgh
*Miller, Orval J.	Fort Wayne	Allen
*Miller, Raymond D.	Martinsville	Marion
*Miller, R. B.	Argos	Marshall
Miller, R. S.	Farmland	Marion
*Miller, Richard C.	Indianapolis	Marion
*Miller, Richard H.	Fort Wayne	Allen
*Miller, Robert J.	Evansville	Vanderburgh
Miller, S. J.	West Lafayette	Tippecanoe
Miller, S. T.	Elkhart	Elkhart
Miller, Virgil	Akron	Fulton
Miller, Wm.	Hagerstown	Wayne-Union
*Miller, Wm. E.	South Bend	St. Joseph
Miller, Wm. T.	Indianapolis	Marion
Milligan, Jas. W. (H)	North Madison	Jefferson
*Millis, Robert	Crawfordsville	Montgomery
*Mills, J. F.	New Castle	Henry
Mino, Victor H.	Evansville	Vanderburgh
Mirro, John A.	Lowell	Lake
*Mishkin, Irving	Elkhart	Elkhart
Mitchell, Albert M.	Terre Haute	Vigo
Mitchell, E. T.	Romney	Tippecanoe
Mitchell, Earl H.	Indianapolis	Marion
Mitchell, G. L.	Smithville	Monroe
Mitchell, H. F. (H)	South Bend	St. Joseph
Mitchell, J. I.	Salem	Washington
Mitchell, R. E.	Indianapolis	Marion
Mitman, F. B.	Huntington	Huntington
Moats, C. F.	Fort Wayne	Allen
Moats, G. E.	Fort Wayne	Allen
Mobley, L. F.	Summitville	Madison
Mock, E. L.	Dallas, Texas	Knox
*Modjeski, Raymond J.	Hammond	Lake
*Moehlenkamp, Chas. E.	Evansville	Vanderburgh
Moenning, W. P.	Indianapolis	Marion
Molloy, W. J.	Muncie	Delaware-Blackford
Molt, W. F.	Indianapolis	Marion
Montgomery, J. R.	Owensville	Gibson
Montgomery, L. G.	Muncie	Delaware-Blackford
Montgomery, S. B.	Cynthiana	Posey
Montgomery, Wm. F.	Indianapolis	Marion
Moore, B. B.	Indianapolis	Marion
*Moore, H. T.	Indianapolis	Marion
Moore, Martha	Butlerville	Jennings
Moore, Paul D.	Muncie	Delaware-Blackford
Moore, R. G.	Vincennes	Knox
Moore, Robert M.	Indianapolis	Marion
Moore, W. C.	Muncie	Delaware-Blackford
Moosey, Louis	Union Mills	La Porte
Moran, Mark M.	Portland	Jay
Moran, Noel D.	Versailles	Ripley
Moravec, Arthur E.	Fort Wayne	Allen
Morgan, Charles A.	Indianapolis	Marion
Morgan, Herman G.	Indianapolis	Marion
Morgan, Isabel	Ann Arbor, Michigan	Hendricks
Morgan, Marion	Evansville	Vanderburgh
Morgan, S. P.	La Porte	La Porte
Moroney, J. H. (H)	Winchester	Randolph
Morr, J. W.	Albion	Noble
Morris, Charles W.	Rockville	Parke-Vermillion
Morris, G. B.	Bluffton	Wells
*Morris, J. B.	Hammond	Lake
Morris, J. W.	Hartford City	Delaware-Blackford
*Morris, Marion H.	Indianapolis	Marion
Morris, W. F.	Fort Branch	Gibson
*Morris, Warren V.	Monticello	Tippecanoe
Morrison, C. C.	Greensburg	Decatur
*Morrison, D. A.	Kokomo	Howard
*Morrison, G. G.	Portland	Jay
Morrison, John S.	Greensburg	Decatur
Morrison, J. T.	La Fayette	Tippecanoe

Name	City	County
Morrison, Lindsey	Hammond	Lake
Morrison, W. R.	Kokomo	Howard
Morrow, R. D.	Connersville	Fayette-Franklin
Mortenson, L. J.	Fort Wayne	Allen
Morton, Walter P.	Indianapolis	Marion
Moser, E. B.	Windfall	Tipton
Moser, Edward	Woodburn	Allen
Moser, R. H.	Indianapolis	Marion
Moses, George E.	Worthington	Greene
*Moss, M. J.	Yorktown	Delaware-Blackford
Mothersill, M. H.	Indianapolis	Marion
Mott, C. A.	South Bend	St. Joseph
*Mount, M. S.	Bloomfield	Greene
*Mount, Wm.	Crawfordsville	Montgomery
Mount, Wm. C.	Kirklin	Clinton
Mountain, Francis	Connersville	Fayette-Franklin
Moutoux, J. E.	Indianapolis	Marion
Mowrer, Giles E.	Jeffersonville	Clark
Mozingo, A. E.	Indianapolis	Marion
Muelchi, Adeline F.	Evansville	Vanderburgh
*Mueller, Lawrence	Fort Wayne	Allen
Mueller, Lillian B.	Indianapolis	Marion
*Muhleman, C. E.	La Porte	La Porte
*Muleaby, B. J.	Muncie	Delaware-Blackford
Mull, P. L.	Indianapolis	Washington
*Muller, Lulles P.	Indianapolis	Marion
Mullikin, C. W.	Greensburg	Decatur
Mullikin, H. M.	Terre Haute	Vigo
Mullin, H. Y.	Rockfield	Carroll
Mumford, E. B.	Indianapolis	Marion
Muncie, H. L.	Brazil	Clay
Munk, C. E.	Kendallville	Noble
Murdock, H. L.	Fort Wayne	Allen
*Murphy, E. C.	South Bend	St. Joseph
Murphy, E. W.	Lanesville	Harrison
Murphy, Harry	Franklin	Johnson
Murphy, Josephine	South Bend	St. Joseph
Murphy, M. G.	Morgantown	Morgan
Murphy, S. C.	Warsaw	Kosciusko
Murray, F. N.	Kokomo	Howard
Musselman, G. G.	Terre Haute	Vigo
Myers, B. D.	Bloomington	Monroe
Myers, Charles W.	Indianapolis	Marion
Myers, R. V.	Indianapolis	Marion
Myers, Wm. C.	Dana	Parke-Vermillion
Nafe, C. A.	Indianapolis	Marion
*Nahrwold, Elmer W.	Fort Wayne	Allen
*Nance, W. K.	Vincennes	Knox
Napper, Floyd	Scottsburg	Scott
*Nash, Charles B.	Valparaiso	Porter
Nash, Justin R.	Albion	Noble
*Nason, R. A.	Garrett	De Kalb
Naugle, R. A.	Wabash	Wabash
Navin, Hugh K.	Fortville	Hancock
Nay, E. O.	Terre Haute	Vigo
*Need, Louis T.	Indianapolis	Marion
Neely, A. S.	Indianapolis	Marion
Nehil, L. W.	Indianapolis	Marion
*Neidballa, E. G.	Bristol	Elkhart
Neier, O. C. (H)	Indianapolis	Marion
*Nelson, Paul Leon	Anderson	Madison
*Nelson, R. B.	Hammond	Lake
*Nelson, Raymond	South Bend	St. Joseph
Nemeker, Henry	Evansville	Vanderburgh
*Nesbit, L. L.	Anderson	Madison
Nesbit, O. B.	Gary	Lake
Netherton, C. R.	Chalmers	Tippecanoe
*Neumann, K. O.	La Fayette	Tippecanoe
Neuwalt, Frank	Gary	Lake
Neville, J. W.	Michigan City	La Porte
Newby, A. C.	Sheridan	Hamilton
Newcomb, John R.	Indianapolis	Marion
*Newcomb, Wm. K.	Royal Center	Cass
Newland, A. E.	Bedford	Lawrence
Newman, A. E.	Evansville	Vanderburgh
Niblack, E. S.	Terre Haute	Vigo
Niblack, J. S.	East Chicago	Lake
Nichols, Wm. E.	Hammond	Lake
Nickel, Allen C.	Bluffton	Wells
Nicosia, J. B.	East Chicago	Lake
Nie, Grover	Huntington	Huntington
*Nie, Louis W.	Huntington	Huntington
Niedermeyer, Alfred	Evansville	Vanderburgh
*High, R. M.	Fairland	Shelby
Nixon, Byron	Farmland	Randolph
Nixon, J. E.	Portland	Jay
Noble, T. B.	Indianapolis	Marion
Noble, T. B., Jr.	Indianapolis	Marion
Noblitt, J. S.	Waveland	Montgomery
Nodinger, Louis	Hammond	Lake
Nolt, E. V.	Columbia City	Whitley
Nolting, H. F.	Indianapolis	Marion
Norman, O. B.	Indianapolis	Marion
*Norman, Wm. H.	Indianapolis	Marion
Norris, Allen A.	Elkhart	Elkhart
*Norris, Ernest B.	Middlebury	Elkhart
Norris, H. L.	Indianapolis	Marion
Norris, Mary A.	Indianapolis	Marion
Northrup, A. H.	Markle	Huntington
Norton, Horace	Indianapolis	Marion
Norton, Wm. J. (H)	Columbus	Bartholomew
*Norwiek, Sydney	Indianapolis	Marion
*Nourse, Myron H.	Indianapolis	Marion
*Nugen, Harold	Auburn	De Kalb
Nutter, W. H.	Rushville	Rush
Nyce, Holtz Wm.	Van Buren	Grant
Nye, J. H.	Cromwell	Noble
Oak, D. D.	La Crosse	La Porte
Obery, George	Oldenburg	Franklin
Ochsner, Harold C.	Indianapolis	Marion
O'Connor, James J.	East Chicago	Lake
O'Dell, Harry	Farmersburg	Sullivan
O'Dell, Thomas A.	Indianapolis	Marion
Ogden, A. W.	Dixon, Illinois	Lake
*Olcott, C. W.	Aurora	Dearborn-Ohio
O'Leary, F. T.	Logansport	Cass
*Oliphant, F. W.	Mount Vernon	Posey
Oliphant, J. T.	Farmersburg	Sullivan
*Oliphant, R. W.	Terre Haute	Vigo
Oliver, E. W.	Evansville	Vanderburgh
Olson, K. L.	South Bend	St. Joseph
*Omstead, Milton	Petersburg	Pike
*Openshaw, J. F.	Goodland	Tippecanoe
Oppenheimer, Ernst	New Harmony	Posey
Orders, C. E.	Indianapolis	Marion
*O'Rourke, Carroll	Fort Wayne	Allen
*Orr, W. Robert	Detroit, Mich.	St. Joseph
Osborne, Harry S.	Indianapolis	Marion
Osterman, Louis	Seymour	Jackson
Ostrowski, L. J.	East Chicago	Lake
Ostrowski, R. O.	Hammond	Lake
*Oswalt, J. T.	Dunkirk	Jay
Otten, Claude F.	Indianapolis	Marion
Otten, Ralph E.	Darlington	Montgomery
Ottinger, R. C.	Indianapolis	Marion
Otto, Anthony E. (H)	Alexandria	Madison
Overman, F. V.	Indianapolis	Marion
Overpeck, Charles	Greensburg	Decatur
Overpeck, George H.	Alexandria	Madison
Overshiner, Lyman	Columbus	Bartholomew
*Owen, Abraham	Attica	Fountain-Warren
*Owen, J. E.	Indianapolis	Marion
Owen, Margaret T.	Bloomington	Monroe
Owens, John B.	Veedersburg	Fountain-Warren
Owens, Thomas R.	Muncie	Delaware-Blackford
Owsley, Charlotte	Hartford City	Delaware-Blackford
Owsley, G. M.	Thorntown	Boone
*Owsley, Guy A.	Hartford City	Delaware-Blackford
*Owsley, Robert	Hartford City	Delaware-Blackford
*Oyer, J. H.	Fort Wayne	Allen
Pace, J. V.	New Albany	Floyd
Padgett, E. E.	Indianapolis	Marion
*Paff, W. A.	Elkhart	Elkhart
Page, Irvine H.	Indianapolis	Marion
Pahmeier, J. W.	Sandborn	Knox
Painter, L. W.	Winchester	Randolph
*Palm, John M.	Brazil	Clay
Palmer, Earl	Logansport	Cass
*Panares, Solomon V.	Hammond	Lake
*Pancost, Vernon K.	Elkhart	Elkhart
*Pandolfo, Harry	Indianapolis	Marion
*Paris, D. W.	Kokomo	Howard
Parker, Carl B.	Wingate	Montgomery
Parker, C. B.	Fort Wayne	Allen
Parker, E. E.	Oxford	Benton
Parker, G. F.	Greeneastle	Putnam
Parker, H. C.	Gary	Lake
Parker, H. P.	Urbana	Wabash
*Parker, J. F.	Indianapolis	Marion
Parker, Portia	Indianapolis	Marion
Parkison, W. M.	Chesterton	Porter
Patrick, G. B.	Elkhart	Elkhart
Patten, V. C.	Morristown	Shelby
Patton, Martin T.	Indianapolis	Marion
*Paulissen, George T.	Indianapolis	Marion
Pauszek, Thomas B.	South Bend	St. Joseph
Payne, A. C.	East Chicago	Lake
Paynter, Claude B.	Salem	Washington
Paynter, L. W.	Salem	Washington
Paynter, Morris B.	Southport	Marion
*Peacock, Robert	Indianapolis	Marion
*Peacock, Norman F.	Crawfordsville	Montgomery
*Peak, Ira F.	Indianapolis	Marion
Pearce, Roy V.	Indianapolis	Marion
Pearlman, Samuel	La Fayette	Tippecanoe
Pearson, John R.	Bedford	Lawrence
Pearson, Lyman R.	Indianapolis	Marion
*Pearson, Wm.	Wabash	Wabash
Pebworth, A. C.	Indianapolis	Marion
*Pebworth, J. T.	Indianapolis	Marion
Peck, Franklin B.	Indianapolis	Marion
Pectol, Charles F.	Spencer	Owen
*Pekarek, Edward A.	Whiting	Lake
Pell, H. M.	Brazil	Clay
*Pence, Benjamin F.	Columbia City	Whitley
*Pennell, John P.	Kokomo	Howard
Pennington, L. E.	South Bend	St. Joseph
Pennington, V. M.	South Bend	St. Joseph
Pennington, W. E.	Indianapolis	Marion
*Penteeost, Paul S.	Richmond	Wayne-Union
Perner, Erwin	Indianapolis	Marion
*Perrin, K. F.	Fort Wayne	Allen
*Perry, F. G.	Plymouth	Marshall
Perry, I. E.	No. Manchester	Wabash
Peters, R. J. D.	Indianapolis	Marion
*Petitjean, H. G.	Haubstadt	Gibson
Petranoff, T. V.	Indianapolis	Marion
Petrass, Andrew	South Bend	St. Joseph
Petronella, S. J.	East Chicago	Lake
Pettibone, C. R.	Crown Point	Lake
Pettijohn, B. B.	Indianapolis	Marion
Pettijohn, F. L.	Indianapolis	Marion
*Peyton, Frank W.	La Fayette	Tippecanoe
*Pfaff, Dudley	Indianapolis	Marion
Pfaff, John A.	Indianapolis	Marion
Pfafflin, C. A.	Indianapolis	Marion
*Pfeifer, James M.	Lawrenceburg	Dearborn-Ohio
*Phillips, J. R.	Michigan City	La Porte
Phillips, W. R.	Glenwood	Fayette-Franklin
Phipps, D. L. (H)	Union City	Johnson
Phipps, Leland K.	Union City	Randolph
Piazza, Leonard F.	Michigan City	La Porte
*Picha, V. J.	Muncie	Delaware-Blackford
*Pickard, H. M.	Elkhart	Elkhart
Pierce, H. J.	Terre Haute	Vigo
Pierson, P. R.	New Albany	Floyd
*Pierson, Robert H.	Spencer	Owen
Pierson, Thomas A.	New Palestine	Hancock
*Pilcher, Jack	Indianapolis	Marion
*Pilot, Jean	Chicago, Ill.	Lake
Pippenger, W. G.	Brook	Jasper-Newton
Pirkle, H. B.	Rockville	Parke-Vermillion
Pitkin, Edward M.	Martinsville	Morgan
Pitkin, M. C.	Martinsville	Morgan
*Plain, George	South Bend	St. Joseph
Ploughe, Monroe L. (H)	Elwood	Madison
Ploughe, R. R.	Elwood	Madison
*Poland, M. F.	Indianapolis	Monroe
Polhemus, Gretchen I.	New Albany	Floyd
Pollard, Walter	Evansville	Vanderburgh
Pollock, E. L.	Vincennes	Knox
Pollom, Robert R.	Crawfordsville	Montgomery

Name	City	County
Pontius, Minerva B.	Ann Arbor, Michigan	Vanderburgh
*Popp, M. F.	Fort Wayne	Allen
*Porter, Carl M.	Jasonville	Greene
Porter, E. A.	Westport	Decatur
Porter, George C.	Linton	Greene
Porter, G. S.	Williamsport	Fountain-Warren
Porter, John R.	Lebanon	Boone
Porter, Mac Guyer (H)	Elnora	Daviess-Martin
Porter, M. F.	Fort Wayne	Allen
*Porter, W. L.	College Corner, Ohio	Wayne-Union
Portteus, Walter L.	Franklin	Johnson
Possolt, T. R.	Plymouth	Marshall
Poston, C. L.	Richmond	Wayne-Union
Powell, E. H.	Valparaiso	Porter
Powell, J. Paxton	Long Beach, Calif.	Marion
Powell, Nettie B. (H)	Marion	Grant
Prather, S. A.	Vincennes	Knox
*Premuda, F. E.	East Chicago	Lake
Prenatt, Francis	North Madison	Jefferson
Prentiss, Nelson H.	Fort Wayne	Allen
*Present, Julian	Evansville	Vanderburgh
Price, C. R.	Geneva	Adams
*Price, Douglas	Nappanee	Elkhart
Price, J. D.	Michigan City	La Porte
Price, Melvin D.	Nappanee	Elkhart
*Price, Sidney	Marion	Grant
Price, W. A. (H)	Nappance	Elkhart
*Prough, W. A.	Indianapolis	Marion
Province, O. A.	Franklin	Johnson
Pryor, David G.	Jeffersonville	Clark
Pryor, R. C.	Indianapolis	Marion
Przednowek, A. C.	La Porte	La Porte
*Pugh, Willis L.	Evansville	Vanderburgh
Pulskamp, B. H.	Wolcottville	Noble
Puryear, J. O.	Gary	Lake
Puterbaugh, K. E.	Albany	Delaware-Blackford
*Pyle, Harold D.	South Bend	St. Joseph
*Quick, Wm. J.	Muncie	Delaware-Blackford
Quickel, Daniel L. (H)	Anderson	Madison
*Quigley, Joseph B.	Indianapolis	Marion
*Rabb, Harry	Indianapolis	Marion
*Radivojevic, S. M.	Valparaiso	Porter
*Rafferty, Michael A.	Elkhart	Elkhart
Ragsdale, H. C.	Bedford	Lawerence
Rainey, E. A.	Lebanon	Boone
*Ramage, W. F.	Fortville	Hancock
Ramsay, J. P. (H)	Vincennes	Knox
*Ramsey, Frank B.	Indianapolis	Marion
*Ramsey, H. S.	Bloomington	Monroe
*Randall, Karl C. II	La Fayette	Tippecanoe
Ranes, J. R.	Mount Vernon	Posey
*Raney, B. B.	Linton	Greene
Rang, A. A.	Washington	Daviess-Martin
Ranke, John W. H.	Fort Wayne	Allen
*Raphael, Isidor J.	Evansville	Vanderburgh
*Rarick, Alden J.	Cromwell	Noble
Rariden, L. B.	Greenfield	Hancock
Rateliff, A. L.	Kingman	Fountain-Warren
*Rateliff, Frank W.	La Fayette	Tippecanoe
Ratcliffe, A. W.	Evansville	Vanderburgh
Rauschenbach, C. W.	Hammond	Lake
Ravdin, Bernard	Evansville	Vanderburgh
Ravdin, Marcus (H)	Evansville	Vanderburgh
Rawles, Lyman T.	Fort Wayne	Allen
Ray, H. A.	Fort Wayne	Allen
Rayl, C. C.	Decatur	Adams
Reagan, L. M.	Kokomo	Howard
Reck, J. L.	Sheridan	Hamilton
Records, A. W.	Franklin	Johnson
*Redding, Lowell G.	Huntington	Huntington
*Reed, Donald	Culver	Marshall
Reed, J. V.	Indianapolis	Marion
Reed, L. D. (H)	Hope	Bartholomew
Reed, Nelle C.	Michigan City	La Porte
Reed, Philip B.	Indianapolis	Marion
*Reed, R. R.	Indianapolis	Marion
*Reed, Wm. C.	Bloomington	Monroe
*Reeder, H. H.	Jeffersonville	Clark
Rees, Russell C.	Indianapolis	Marion
*Regan, George L.	Sellersburg	Clark
Reich, Clarence E.	Evansville	Vanderburgh
*Reid, Chas. A.	Indianapolis	Marion
Reid, Robert W.	Union City	Randolph
Reisler, Simon	Indianapolis	Marion
*Reiss, Jack	Indianapolis	Marion
Reitz, Thomas F.	Evansville	Vanderburgh
*Remich, A. C.	Hammond	Lake
*Renbarger, L. L.	Marion	Grant
Rendel, C. F.	Mexico	Miami
*Rendel, D. T.	Hammond	Lake
Rentschler, L. C.	Clay City	Clay
Reppert, Roland	Decatur	Adams
Resoner, Wm. S.	Swayzee	Grant
Rettig, A. C.	Muncie	Delaware-Blackford
*Reul, Thomas W.	Indianapolis	Marion
Reusser, Amos	Berne	Adams
Reynolds, D. M.	Garrett	De Kalb
*Reynolds, F. C.	Indianapolis	Marion
Reynolds, F. M.	Montpelier	Wells
Reynolds, J. S.	Gary	Lake
Reynolds, R. P.	Garrett	De Kalb
*Rhamy, A. P.	Wabash	Wabash
Rhamy, B. W.	Fort Wayne	Allen
*Rhea, G. D.	Greencastle	Putnam
Rhea, James C.	Beech Grove	Marion
Rhind, A. W.	Hammond	Lake
Rhodes, A. H.	Princeton	Gibson
Rhodes, Theodore D.	Indianapolis	Marion
Rhorer, H. M.	Kokomo	Howard
*Rhorer, R. J.	Kokomo	Howard
*Rice, C. L.	Logansport	Cass
Rice, Raymond M.	Indianapolis	Marion
Rice, Thurman B.	Indianapolis	Marion
Rice, T. R. (H)	Petersburg	Pike
Rice, W. B.	Fort Wayne	Allen
*Rich, J. S.	Evansville	Vanderburgh
Richards, D. H.	Vincennes	Knox
Richards, E. E.	Russellville	Montgomery
Richards, R. H.	Patricksburg	Owen
*Richardson, C. L.	Rochester	Fulton
Richardson, G. G.	Marion	Grant
*Riehart, J. V.	Terre Haute	Vigo
Richer, O. H.	Warsaw	Kosciusko
*Richey, Clifford	Evansville	Vanderburgh
Richter, Arthur B.	Indianapolis	Marion
Riehter, Samuel	Gary	Lake
Ricker, E. G.	Monticello	White
Ricketts, J. W.	Indianapolis	Marion
Ridenour, David C. (H)	Peru	Miami
Ridgeway, O. W.	Indianapolis	Marion
Rigg, J. F.	Indianapolis	Marion
Riggs, Floyd	Terre Haute	Vigo
Rigley, E. L.	South Bend	St. Joseph
Riley, E. T.	Greensburg	Decatur
Riley, Frank	Jamestown	Boone
Rinker, E. B.	Indianapolis	Marion
Rinne, John I.	Lapel	Madison
*Rinne, John I., Jr.	Anderson	Madison
Rissing, Walter J.	Fort Wayne	Allen
Ristine, Warren H. (H)	Crawfordsville	Montgomery
*Ritchey, J. A.	Marion	Grant
Ritchey, J. O.	Indianapolis	Marion
Ritter, W. L.	Indianapolis	Marion
Robertson, A. N.	New Albany	Floyd
Robertson, D. W. (H)	Deputy	Jennings
Robertson, M. O.	Bedford	Lawrence
Robertson, Ray	Indianapolis	Marion
*Robertson, W. S.	Spiceland	Henry
Robinson, Earl U.	Evansville	Vanderburgh
Robinson, F. C.	Indianapolis	Marion
Robison, C. A.	Frankfort	Clinton
Robison, J. S.	Winchester	Randolph
Robrock, Lawrence M.	Michigan City	La Porte
Rockey, Noah A.	Fort Wayne	Allen
Rodenbeck, Frank	Arcadia	Hamilton
Rodin, Herman H.	South Bend	St. Joseph
Rodriguez, Juan	Fort Wayne	Allen
Rogers, Clarke	Indianapolis	Marion
*Rogers, O. F.	Bloomington	Monroe
Rogers, R. C.	Bloomington	Monroe
Rogers, S. T. (H)	New Albany	Floyd
*Rogers, Thomas P.	Indianapolis	Marion
*Rohrer, J. R.	Washington	Daviess-Martin
Roland, C. F.	Indianapolis	Marion
Roll, E. C.	Indianapolis	Marion
Roller, C. W.	Indianapolis	Marion
Rollins, Russell	Royal Center	Cass
*Romack, H. H.	Greenfield	Hancock
Romberger, F. T.	La Fayette	Tippecanoe
*Romberger, Floyd T., Jr.	Indianapolis	Marion
*Rommel, Clarence H.	West Lafayette	Tippecanoe
Ropp, E. R.	Oakland City	Gibson
*Ropp, H. E.	New Harmony	Posey
Rose, Bertha	West Lafayette	Tippecanoe
*Rosenak, Bernard D.	Indianapolis	Marion
*Rosenbaum, L. E.	Anderson	Madison
Rosenblatt, B. B.	Evansville	Vanderburgh
*Rosenbloom, P. J.	Gary	Lake
Rosenheimer, Geo. M.	South Bend	St. Joseph
*Rosenwasser, Jacob	Mishawaka	St. Joseph
*Roser, A. J.	Arcola	Allen
*Ross, Alexander T.	Indianapolis	Marion
Ross, Ben R.	Bloomington	Monroe
Ross, Guy E.	Anderson	Madison
Ross, H. P.	Richmond	Wayne-Union
Ross, L. F.	Richmond	Wayne-Union
Ross, Milton S.	Columbus	Bartholomew
Ross, W. W.	La Porte	La Porte
Rossiter, D. L.	Fort Wayne	Allen
*Rossman, Wm. B.	Indianapolis	Marion
*Rothberg, Maurice	Fort Wayne	Allen
Rothschild, C. J.	Fort Wayne	Allen
*Rotman, Harry G.	Jasonville	Greene
Rotman, Sam	Jasonville	Greene
*Row, D. H.	Indianapolis	Marion
Row, George S.	Osgood	Ripley
Row, Perry Q.	Hammond	Lake
Royer, Ray E.	North Salem	Hendricks
Royster, George M.	Evansville	Vanderburgh
Royster, Hollace R.	Frankfort	Clinton
Royster, R. A.	Evansville	Vanderburgh
*Rozelle, Clarence V.	Anderson	Madison
*Rubin, Gerald S.	Indianapolis	Marion
*Rubin, M. R.	Gary	Lake
Rubin, Milton M.	Terre Haute	Vigo
Ruby, Fred McKemy	Union City	Randolph
*Ruch, Monroe K.	Indianapolis	Marion
Ruddell, Karl R.	Indianapolis	Marion
Ruddick, H. C.	Evansville	Vanderburgh
Rudesill, C. L.	Indianapolis	Marion
*Rudolph, Carl J.	South Bend	St. Joseph
Rudolph, F. G.	Hammond	Lake
*Rudser, D. H.	Whiting	Lake
Ruhmkorff, Ralph H.	Goodland	Jasper-Newton
Runyan, H. C.	Alexandria	Madison
Rupel, Ernest	Indianapolis	Marion
Ruschli, E. B.	La Fayette	Tippecanoe
Rusk, Hubert M.	Wallace	Fountain-Warren
*Russell, O. Raymond	Frankton	Madison
*Rust, Byron K.	Indianapolis	Marion
Ruth, Martin L.	Indianapolis	Marion
Rutherford, C. W.	Indianapolis	Marion
Ryan, H. J.	Gary	Lake
Ryan, L. K.	Gary	Lake
Sabin, A. E.	Dana	Parke-Vermillion
*Sage, C. V.	Brownstown	Marion
Sage, Russell	Indianapolis	Marion
Sagel, Jacob	Gary	Lake
*Sala, J. J.	Gary	Lake
*Salb, John A.	Indianapolis	Marion
Salb, Leo A.	Jasper	Dubois
*Salb, Max C.	Indianapolis	Marion
Salon, Harry W.	Fort Wayne	Allen
Salon, N. L.	Fort Wayne	Allen
Samples, J. T.	Boonville	Warrick
Sanders, I. M.	Greensburg	Decatur
Sanders, J. A.	Auburn	De Kalb
Sanderson, R. B.	South Bend	St. Joseph

Name	City	County
*Sanderson, R. J.	Westville	La Porte
Sandock, Isadore	South Bend	St. Joseph
*Sandock, Louis	South Bend	St. Joseph
Sandorf, M. H.	Indianapolis	Marion
*Sandoz, Harry	South Bend	St. Joseph
Sandoz, Louis A.	South Bend	St. Joseph
*Sandy, Wm. A.	Indianapolis	Marion
Saunders, J. L.	Newport	Parke-Vermillion
*Savage, A. R.	Fort Wayne	Allen
Savery, C. E.	South Bend	St. Joseph
Sayers, F. E.	Terre Haute	Vigo
*Scales, A. B.	Oakland City	Gibson
Scamahorn, O. T.	Pittsboro	Hendricks
Schaaf, Alvin	Jamestown	Boone
Schaefer, C. R.	Indianapolis	Marion
Schaible, E. L.	Gary	Lake
*Schantz, Richard	Remington	Jasper-Newton
Schechter, John S.	Indianapolis	Marion
Scheetz, Marion R.	Lewisville	Henry
Scheier, E. W.	Indianapolis	Marion
*Schellhouse, Earl M.	Fort Wayne	Allen
Schenck, Foss	Fort Wayne	Cass
Schenk, G. H.	Ridgeville	Randolph
Scherer, Simon P. (H)	Martinsville	Morgan
Scheurich, Virgil	Oxford	Benton
Schick, Martin F. (H)	Fort Wayne	Allen
*Schiller, Herbert A.	South Bend	St. Joseph
Schlegel, Edward H.	Fort Wayne	Allen
Schleunmer, George H.	Warsaw	Kosciusko
Schlesinger, Jacob	Hammond	Lake
Schlieker, A. G. (H)	East Chicago	Lake
Schlosser, H. C.	Elkhart	Elkhart
Schmiedicke, P. H.	La Fayette	Tippecanoe
*Schmitt, Richard K.	Columbus	Bartholomew
Schneider, A. J.	Indianapolis	Marion
*Schneider, Carl J.	Indianapolis	Marion
*Schneider, C. P.	Evansville	Vanderburgh
Schoen, P. H.	New Albany	Floyd
Schoolfield, Wm. E.	Orleans	Orange
Schott, Edward J.	Terre Haute	Vigo
Schriefer, E. E.	Cannelton	Perry
Schriefer, V. V.	Evansville	Vanderburgh
Schuchman, Gabriel	Indianapolis	Marion
Schuler, R. P.	Kokomo	Howard
*Schulhof, M. G.	Muncie	Delaware-Blackford
Schulz, C. H.	Lagrange	Lagrange
Schulze, Hans A.	Cumberland	Marion
Schulze, Wm.	Vincennes	Knox
Schumaker, Eugene	Rensselaer	Jasper-Newton
Schuman, Edith B.	Bloomington	Monroe
Schuman, Oliver V. (H)	Columbia City	Whitley
Schutt, J. B.	Ligonier	Noble
*Schwartz, David I.	Fort Wayne	Allen
Schwartz, W. D.	Portland	Jay
Schweitzer, Ada E.	Indianapolis	Marion
Scott, Frank M.	South Bend	Shelby
Scott, G. D.	Sullivan	Sullivan
*Scott, H. V.	Fort Wayne	Allen
Scott, Irvin H.	Sullivan	Sullivan
*Scott, I. W.	Indianapolis	Marion
Scott, R. F.	Kokomo	Howard
Scott, R. O.	Charlottesville	Hancock
Scott, S. L.	Indianapolis	Marion
Scott, V. Brown	Shelbyville	Shelby
Scudder, A. N.	Brownsburg	Hendricks
Scudder, J. A.	Edwardsport	Knox
Seale, Joseph	Fairmount	Grant
*Seaman, C. F.	Indianapolis	Marion
Sears, M. Maywood	Elkhart	Elkhart
Seaton, Albert	Indianapolis	Marion
Seaton, G. W.	Indianapolis	Marion
*Sedam, Herbert L.	Indianapolis	Marion
Segar, Louis H.	Indianapolis	Marion
*Selby, K. E.	South Bend	St. Joseph
Selsam, Etta B.	Terre Haute	Vigo
Senese, T. J.	Gary	Lake
Sennett, C. M.	South Bend	St. Joseph
*Sennett, Wm. K.	Winamac	Pulaski
Sensenich, R. L.	South Bend	St. Joseph
Senseny, Herbert	Fort Wayne	Allen
Sessions, S. K. (H)	Anna, Ill.	Marion
*Seward, G. W.	N. Manchester	Wabash
Seybert, J. D.	Kendallville	Noble
Seyler, Anna G.	Crown Point	Lake
Shackfett, H. B.	New Albany	Floyd
Shafer, J. W.	La Fayette	Tippecanoe
Shafer, Marion R.	Indianapolis	Marion
*Shaffer, K. L.	Vincennes	Knox
Shallenberger, H. R.	Modoc	Randolph
Shanedling, Philip D.	Hammond	Lake
Shanklin, E. M.	Hammond	Lake
Shanklin, H. L.	Henryville	Clark
*Shanklin, James	Hammond	Lake
Shanklin, V. A.	Terre Haute	Vigo
Shanks, Ray W.	Noblesville	Hamilton
Shanks, Roy E.	Rushville	Rush
*Sharp, John L.	Crawfordsville	Montgomery
*Sharp, W. L.	Anderson	Madison
Shattuck, John C.	Brazil	Clay
Shedd, H. B.	South Bend	St. Joseph
*Sheehan, Francis G.	Indianapolis	Marion
*Sheek, Kenneth I.	Greenwood	Johnson
Shellhouse, Michael	Gary	Lake
Shenk, E. M.	Kokomo	Howard
Shepard, Fred F.	College Corner, Ohio	Wayne-Union
Sherster, Harry	Huntingburg	Dubois
*Shields, Jack E.	Ewing	Marion
Shimer, Wm.	Indianapolis	Marion
Shinabery, Lawrence	Fort Wayne	Allen
Shoemaker, James B.	Miami	Miami
Sholty, L. O.	La Fayette	Tippecanoe
*Sholty, W. M.	La Fayette	Tippecanoe
Short, John	Fort Wayne	Allen
Shortridge, W. H.	Seymour	Jackson
*Shortz, Gerald	Kendallville	Noble
Shoup, H. B.	Greentown	Howard
Showalter, John	Waterloo	De Kalb
*Shrader, Jack C.	Indianapolis	Marion
Shrock, E. E.	Amboy	Miami
*Shuck, Wm. H.	Madison	Jefferson
Shugart, J. A.	Indianapolis	Lake
*Shuler, L. L.	Indianapolis	Marion
Shullenberger, W. A.	Indianapolis	Marion
*Shulruff, H. I.	Hammond	Lake
Shultz, H. M.	Logansport	Cass
*Sicks, O. W.	Indianapolis	Marion
Siebenmorgen, Louis	Terre Haute	Vigo
Siekerman, C. W.	Indianapolis	Marion
*Siekierski, J. M.	Gary	Lake
Siersdorfer, T. N.	Indianapolis	Marion
*Siewert, O. L.	Logansport	Cass
Sigmon, E. L. (H)	Galena	Floyd
Sigmond, Harvey W.	Indianapolis	Marion
*Sigmund, Wm. B.	Columbus	Bartholomew
*Silbert, David B.	Shelbyville	Shelby
Silliman, G. S.	Terre Haute	Clay
Silverburg, S. G.	Evansville	Delaware-Blackford
*Silverman, Norman M.	Terre Haute	Vigo
Silvers, J. C.	Muncie	Delaware-Blackford
Silvers, J. M.	Muncie	Delaware-Blackford
Silvian, Harry	Whiting	Lake
Simmons, L. H.	Goshen	Elkhart
Simon, A. R.	La Porte	La Porte
Simon, A. V.	New Albany	Floyd
Simons, J. S. (H)	Lyons	Greene
Simpson, Morrell E.	Bedford	Lawrence
*Sims, J. Lawrence	Indianapolis	Marion
Sims, S. B. (H)	Frankfort	Clinton
Singer, E. C.	Fort Wayne	Allen
*Sink, Frank G.	Remington	Jasper-Newton
*Sirlin, E. M.	Mishawaka	St. Joseph
Skeen, E. D.	Gary	Lake
Skillern, P. G.	South Bend	St. Joseph
*Skobba, Joseph S.	Fort Wayne	Jennings
Skomp, Claud E.	Marion	Grant
Skrentny, Stanley	Hammond	Lake
Slabaugh, J. S.	Nappanee	Elkhart
Slabaugh, Lotus M.	Nappanee	Elkhart
*Slegelmilch, Lorin	Wabash	Wabash
*Slick, C. R.	Lynn	Randolph
Sloan, H. P.	New Albany	Floyd
*Slominski, H. H.	South Bend	St. Joseph
Sloss, I. H.	Terre Haute	Vigo
*Sluss, David H.	Indianapolis	Marion
Sluss, John W. (H)	Indianapolis	Marion
Small, E. F.	Vincennes	Knox
*Smallwood, R. B.	Bedford	Lawrence
Smelser, H. W.	Connersville	Fayette-Franklin
Smiley, J. H.	Indianapolis	Marion
*Smith, B. J.	Kingman	Fountain-Warren
*Smith, D. L.	Indianapolis	Marion
*Smith, E. Rogers	Indianapolis	Marion
Smith, Francis C.	Indianapolis	Marion
Smith, G. A.	New Haven	Allen
Smith, G. F.	Lawrenceburg	Dearborn-Ohio
Smith, George C.	Poseyville	Posey
Smith, H. Brooks	Bluffton	Wells
Smith, H. N.	Brookville	Fayette-Franklin
*Smith, H. S.	Gary	Lake
Smith, James M.	Nashville	Marion
Smith, James S.	Muncie	Delaware-Blackford
*Smith, John H.	Bloomington	Monroe
*Smith, Joseph S.	Plainfield	Hendricks
*Smith, L. C.	La Fayette	Tippecanoe
Smith, L. W.	Warren	Huntington
Smith, Lester A.	Indianapolis	Marion
*Smith, Louis D.	East Chicago	Lake
*Smith, M. P.	Muncie	Delaware-Blackford
Smith, Paul B.	East Chicago	Lake
Smith, Paul E.	Richmond	Wayne-Union
*Smith, R. A.	New Castle	Henry
Smith, R. D.	Bloomington	Monroe
Smith, R. Lee	Osgood	Ripley
*Smith, Roy L.	Indianapolis	Marion
Smith, T. J.	Whiting	Lake
Smith, W. E.	Decatur	Adams
Smith, Wilbur F.	Indianapolis	Marion
*Smithson, Robert A.	Evansville	Vanderburgh
Smoot, E. Brayton	Washington	Daviess-Martin
Smoots, S. A.	Terre Haute	Vigo
Smullen, Chas. L. (H)	Rushville	Rush
*Smullen, Willard C.	Rushville	Rush
Sneary, K. D.	Avilla	Noble
Snider, Byron	Indianapolis	Marion
Snyder, E. R.	Troy	Perry
Solomon, R. A.	Indianapolis	Marion
Solt, Wm. J.	San Pierre	La Porte
*Somers, G. H.	Fort Wayne	Allen
Somers, L. E.	Fort Wayne	Allen
Souder, Bonnell M.	Auburn	De Kalb
Sourwine, C. C.	Brazil	Clay
Souter, Martha C.	Indianapolis	Marion
Southard, C. B.	Noblesville	Hamilton
*Sovine, Joe W.	Indianapolis	Marion
Spahr, D. E.	Portland	Jay
*Spalding, J. J.	Indianapolis	Marion
*Spalding, W. L.	Mishawaka	St. Joseph
*Spangler, Jesse S.	Kokomo	Howard
Sparks, A. J.	Fort Wayne	Allen
*Sparks, Alan L.	Indianapolis	Marion
Sparks, Paul W.	Winchester	Randolph
*Spaulding, Earl	New Albany	Floyd
Spears, John K.	Paoli	Orange
*Speas, R. C.	Bloomington	Monroe
Speheger, Benjamin A.	Bedford	Lawrence
Spencer, Frederic	Vincennes	Knox
Spenner, R. W.	South Bend	St. Joseph
Spieth, Wm. H.	Lebanon	Boone
Spigler, James	Terre Haute	Vigo
Spigler, O. R.	Terre Haute	Vigo
*Spindler, Robert	New Castle	Henry
Spink, Urbana	Indianapolis	Marion
Spinning, Alva (H)	Michigan City	Fountain-Warren
*Spivey, R. J.	Indianapolis	Marion
Spolyar, L. W.	Indianapolis	Marion
Sponder, Joseph	Gary	Lake
Springstun, C. E.	Tennyson	Warrick
Springstun, C. L.	Chrisney	Spencer
Springstun, George	Oaktown	Knox
*Springstun, W. R.	Evansville	Vanderburgh
Spurgeon, O. E.	Muncie	Delaware-Blackford
Sputh, Carl B.	Indianapolis	Marion
Sputh, Carl B., Jr.	Indianapolis	Marion
*Staff, R. A.	Rockville	Parke-Vermillion

Name	City	County
Stafford, J. C.	Plainfield	Hendricks
*Stafford, W. C.	Plainfield	Hendricks
Stahl, Edward	La Fayette	Tippecanoe
Stalker, James B.	Indianapolis	Marion
*Stamper, J. H.	Middletown	Henry
*Stamper, L. Allen	Richmond	Wayne-Union
Stamper, W. L.	Indianapolis	Marion
*Stangle, W. J.	Mooresville	Morgan
*Stanley, J. S.	East Chicago	Lake
Stanton, Harmon L.	Evansville	Vanderburgh
Stanton, J. J.	Logansport	Cass
Stauffer, Walter A.	Elkhart	Elkhart
Stayton, C. A.	Indianapolis	Marion
*Steey, Peter	Whiting	Lake
*Steele, Brandt F.	Indianapolis	Marion
*Steele, D. J.	Greencastle	Putnam
Steele, E. B.	Crown Point	Lake
Steffen, A. J.	Wabash	Wabash
Steffen, J. T.	Wabash	Wabash
Steinkamp, E. F.	Huntingburg	Dubois
Steinman, H. E.	Monroeville	Allen
*Stellner, Howard A.	Pendleton	Madison
Stemm, W. H. (H)	North Vernon	Jennings
Stephens, K. H.	Lawrence	Marion
*Stephens, Lowell R.	Covington	Fountain-Warren
Stephens, R. Clarence	Plymouth	Marshall
Stephenson, L. E.	Michigan City	La Porte
*Stern, David H.	Hammond	Lake
Stern, Nathan	Indianapolis	Marion
Stern, S. L.	Hammond	Lake
Stevens, George C.	Indianapolis	Marion
*Stevens, S. L.	Indianapolis	Marion
Stewart, C. E.	Vincennes	Knox
Stewart, Chas. S. (H)	Auburn	De Kalb
Stewart, F. C.	Evansville	Vanderburgh
*Stewart, J. H.	Marion	Grant
Stewart, Milton B.	Logansport	Cass
Stewart, O. H.	Aurora	Dearborn-Ohio
Stewart, Oscar H. (H)	Orleans	Orange
Stewart, W. E.	Terre Haute	Vigo
*Stier, Paul L.	Fort Wayne	Allen
Stimson, Harry R.	Gary	Lake
Stinson, A. E.	Rochester	Fulton
Stinson, Dean K.	Rochester	Fulton
*Stirling, E. H.	Fort Harrison	Marion
*Stiver, Daniel	South Bend	St. Joseph
Stocking, B. W.	Muncie	Delaware-Blackford
*Stoeffler, Walter	Indianapolis	Marion
*Stoelting, V. K.	Winchester	Randolph
*Stoen, H. J.	La Fayette	Tippecanoe
Stoler, A. E.	Fort Wayne	Allen
*Stone, A. T.	Indianapolis	Marion
Stone, Charles E.	Bedford	Lawrence
*Stone, David F.	Indianapolis	Marion
*Stone, Wayne B.	Carmel	Hamilton
Storer, Wm. R.	Hobart	Lake
Storey, Joseph L.	Indianapolis	Marion
Stork, Harvey	Huntingburg	Dubois
*Stork, Urban	Evansville	Vanderburgh
Storms, Roy B.	Indianapolis	Marion
Stottlemyer, S. J.	Anderson	Madison
Stouder, Albert E.	Kempton	Tipton
Stouder, C. E.	Gosport	Owen
*Stout, R. B.	Elkhart	Elkhart
*Stout, Walter M.	New Castle	Henry
Stover, C. J.	Muncie	Delaware-Blackford
*Stover, W. C.	Boonville	Warrick
Stoycoff, C. M.	Gary	Lake
Strange, J. W.	Loogootee	Daviess-Martin
Strayer, J. W.	La Fayette	Tippecanoe
Streck, F. A.	Lawrenceburg	Dearborn-Ohio
Strickland, Karl S.	Owensville	Gibson
Strong, Daniel S.	Terre Haute	Vigo
Stroube, C. N.	Roachdale	Putnam
*Stroup, Tyler J.	Indianapolis	Marion
Stuckman, E. D.	New Paris	Elkhart
Study, Joseph N. (H)	Cambridge City	Wayne-Union
Stultz, Q. F.	Ligonier	Noble
Stygall, J. H.	Indianapolis	Marion
Sudranski, Herbert F.	Indianapolis	Marion
Sullenger, A. A.	Indianapolis	Marion
Sullivan, A. M.	South Bend	St. Joseph
*Sullivan, John M.	Terre Haute	Vigo
Sullivan, T. L.	Indianapolis	Marion
Surber, John R.	New York City	Marion
Sutter, Charles C.	Evansville	Vanderburgh
*Sutton, Wm. E.	Edinburg	Johnson
Suverkrup, Lotta A.	Columbus	Bartholomew
Swan, D. H.	Plainville	Daviess-Martin
Swan, John R.	Indianapolis	Marion
Swan, Richard Carl	Indianapolis	Marion
Swank, L. Forest	Elkhart	Elkhart
Swank, Lucretia R.	Elkhart	Elkhart
Swanson, John	Fort Wayne	Allen
Swantusch, O. H.	Angola	Steuben
Swarts, Willard W.	Auburn	De Kalb
Swayne, J. F.	Indianapolis	Marion
Sweet, Austin D.	Martinsville	Morgan
*Sweet, Howard E.	Richmond	Wayne-Union
Swezey, H. N.	La Fayette	Tippecanoe
Swihart, Glen L.	Elkhart	Elkhart
Swihart, L. F.	Elkhart	Elkhart
Szabo, S. A.	East Chicago	Lake
Tabor, F. A.	Terre Haute	Vigo
Take, J. F.	Valparaiso	Porter
*Talbott, Dan E.	Indianapolis	Marion
Tallman, H. H.	Culver	Marshall
Tate, W. W.	Thayer	Newton
Tavenner, Fred	Gas City	Grant
Taylor, B. M.	Portland	Jay
*Taylor, C. C.	Indianapolis	Marion
Taylor, D. E.	Velpen	Pike
Taylor, E. C.	Upland	Grant
*Taylor, F. W.	Indianapolis	Marion
Taylor, J. E.	Leopold	Perry
Taylor, J. H. (H)	Indianapolis	Marion
Taylor, L. S.	Elberfield	Warrick
Taylor, R. D.	Indianapolis	Marion
Taylor, W. H.	Ambia	Benton
Taylor, W. M.	Crawfordsville	Montgomery
Taylor, W. R.	Richmond	Wayne-Union
Teaford, S. F.	Paoli	Orange
Teague, Frank	Indianapolis	Marion
Teal, Dorothy D.	Columbus	Bartholomew
Teegarden, J. A., Jr.	East Chicago	Lake
Teegarden, J. A., Sr.	East Chicago	Lake
Teeter, E. J.	Indianapolis	Marion
Teixler, V. A.	Indianapolis	Marion
Templin, D. B.	Gary	Lake
Tennant, L. W.	Larwill	Whitley
Tennis, George	Putnamville	Putnam
*Teplinsky, L. L.	East Chicago	Lake
Terflinger, F. W.	Logansport	Cass
Terbune, Rufus W. (H)	Martinsville	Morgan
*Terrill, R. W.	Fort Wayne	Allen
*Terry, C. C.	South Bend	St. Joseph
Teter, Eber	Cambridge City	Henry
Teters, Melvin	Middlebury	Elkhart
*Tharpe, Ray	Indianapolis	Marion
*Thatcher, H. K., Jr.	Indianapolis	Marion
*Thayer, B. W.	North Vernon	Jennings
Thimlar, J. Wiley	Fort Wayne	Allen
*Thom, Jay W.	Gosport	Owen
Thom, Julia S.	Spencer	Owen
Thomas, C. B.	Plainfield	Hendricks
Thomas, C. E.	Leesburg	Kosciusko
*Thomas, Everett W.	Leesburg	Kosciusko
Thomas, F. A.	Indianapolis	Marion
Thomas, G. A.	La Fayette	Tippecanoe
*Thomas, Morris C.	Oaklandon	Marion
*Thomas, Morris E.	Indianapolis	Marion
Thomas, Ray H.	South Bend	St. Joseph
Thompson, A. A.	Tyner	Marshall
*Thompson, Chas. F.	Indianapolis	Marion
Thompson, J. V.	Indianapolis	Marion
*Thompson, John M.	Bremen	Marshall
Thompson, W. A.	Liberty	Wayne-Union
Thompson, W. N. (H)	Sullivan	Sullivan
Thomson, J. W.	Garrett	De Kalb
*Thornburg, Kenneth	Indianapolis	Marion
*Thorne, C. E.	New Castle	Henry
Thornton, Harold C.	Indianapolis	Marion
Thornton, Maurice J.	South Bend	St. Joseph
Thornton, Walter	Fort Wayne	Allen
Thurston, A. L.	Indianapolis	Marion
Thurston, H. F.	Indianapolis	Marion
Thurston, H. S.	Indianapolis	Marion
Tiley, George	Greenwood	Johnson
Tindal, E. F.	Muncie	Delaware-Blackford
Tindall, Paul R.	Shelbyville	Shelby
*Tindall, Wm. R.	Shelbyville	Shelby
Tinney, W. E.	Indianapolis	Marion
Tinsley, W. B.	Indianapolis	Marion
*Tipton, Wm. R.	Greencastle	Putnam
Tirico, J. G.	Hammond	Lake
*Tischer, E. P.	Indianapolis	Marion
Titus, Charles	Wilkinson	Hancock
Titus, Philip S.	Fort Wayne	Allen
Todd, D. D.	Elkhart	Elkhart
Tomak, M. E.	Linton	Greene
Tomlinson, C. H.	Cicero	Hamilton
*Topolgus, James N.	Bloomington	Monroe
Topping, M. C.	Terre Haute	Vigo
*Torrella, J. A.	Indianapolis	Marion
Totten, E. C.	Madison	Jefferson
Tourner, Frank F.	Bloomington	Monroe
Tower, Thomas K.	Campbellsburg	Washington
Tracy, J. Ross	Anderson	Madison
Tranter, W. F.	Sharpsville	Tipton
*Traver, P. C.	South Bend	St. Joseph
*Travis, J. C., Jr.	Indianapolis	Marion
Tremain, M. A.	Adams	Decatur
Tremor, V. F.	Indianapolis	Marion
Treon, James F.	Aurora	Dearborn-Ohio
Tripp, H. D.	Philadelphia, Pa.	Marshall
*Trout, C. J.	West Point	Tippecanoe
Troutwine, William R.	Crown Point	Lake
Trusler, H. M.	Indianapolis	Marion
Tubbs, George R.	La Fayette	Tippecanoe
Tucker, C. C.	Greencastle	Putnam
Tucker, Jesse E.	Lebanon	Boone
Tucker, O. A.	Daleville	Delaware-Blackford
Tucker, Warren S.	Indianapolis	Marion
Tully, J. A.	New Castle	Henry
Turley, Verne L.	Fowler	Benton
Turner, H. B.	Bloomfield	Greene
Turner, Oscar A.	Madison	Jefferson
Turner, Robert	Muncie	Delaware-Blackford
*Tweedall, D. C.	Evansville	Vanderburgh
Tweedall, D. G.	Evansville	Vanderburgh
Twyman, A. H.	Indianapolis	Marion
Tyler, F. T.	New Albany	Floyd
Tyrell, Thomas C.	Hammond	Lake
Underwood, G. B.	Evansville	Vanderburgh
*Ursehel, Dan L.	Mentone	Kosciusko
Utterback, Arnold	Terre Haute	Vigo
Valentine, E. J.	Shelbyville	Shelby
*Van Arsdall, C. R.	Terre Haute	Vigo
VanBuskirk, E. L.	La Fayette	Tippecanoe
Van Buskirk, E. M.	Fort Wayne	Allen
Vance, Walter H.	Fort Wayne	Allen
*Vance, Wm. C.	Richmond	Wayne-Union
Van Cleave, M. B.	Terre Haute	Vigo
Vanderbogart, H. E.	Goshen	Elkhart
Vandivier, H. R.	Terre Haute	Vigo
Vandivier, R. M.	Indianapolis	Marion
*Van Dorf, Nathaniel	East Chicago	Lake
Van Kirk, George H.	Kentland	Jasper-Newton
Van Kirk, J. A.	Frankfort	Clinton
Van Nest, W. A.	Hudson	De Kalb
Van Nuys, J. D.	Indianapolis	Marion
Van Nuys, W. C.	New Castle	Henry
Van Osdol, H. A.	Indianapolis	Marion
Van Reed, Earl	La Fayette	Tippecanoe
Van Rie, L. P.	Mishawaka	St. Joseph
Van Sandt, F. A.	Bloomfield	Greene
Van Sandt, J. W.	Carbon	Clay
Van Winkle, Arthur J.	Valparaiso	Porter
Varble, Wm. M.	Jeffersonville	Clark
Varner, Victor I.	Evansville	Vanderburgh
Veach, Lester W.	Bainbridge	Putnam
Veazey, Wm. (H)	Avilla	Noble
Velkoff, Metodi	Fort Wayne	Allen
*Venis, Kemper N.	Muncie	Delaware-Blackford

Name	City	County
Verplank, G. L.	Gary	Lake
*Vetter, K. W.	Elkhart	Elkhart
Viehe, Robert W.	Evansville	Vanderburgh
Vietzke, P. C. F.	Valparaiso	Porter
Viney, Charles L.	Logansport	Cass
Visher, John W.	Evansville	Vanderburgh
Vlaskamp, Elaine	Muncie	Delaware-Blackford
Vogele, C. L.	Burns City	Lawrence
*Voges, Edward C.	Terre Haute	Vigo
Voisinet, R. A.	Union City	Randolph
Vollrath, V. J.	Indianapolis	Marion
Vore, Hugh A.	East Chicago	Lake
Vore, L. W.	Plymouth	Marshall
Voyles, C. F.	Indianapolis	Marion
Voyles, Harry	New Albany	Floyd
*Vracin, Daniel	Griffith	Lake
Vye, James P.	Gary	Lake
Wade, A. A.	Howe	Lagrange
Wadsworth, H. C.	Washington	Daviess-Martin
Wagner, S. C.	Elkhart	Elkhart
*Wagoner, G. W.	Burrows	Carroll
Wagoner, Robert H.	Colburn	Tippecanoe
Waldo, J. Thayer	Indianapolis	Marion
Wales, E. De Wolfe	Indianapolis	Marion
Walker, F. C.	Indianapolis	Marion
Walker, J. L.	La Fontaine	Wabash
*Walker, Robert K.	Indianapolis	Marion
Walkinshaw, Wm. (H)	Stillwell	La Porte
Wall, Joseph A.	Wabash	Wabash
Wallace, E. R.	Aurora	Dearborn-Ohio
*Wallace, Hawthorne C.	Crawfordsville	Montgomery
Wallace, J. C.	Fort Wayne	Allen
Waller, John I.	Knightstown	Henry
Waller, W. F.	Angola	Steuben
*Walsh, E. N.	Whiting	Lake
*Walsh, T. P.	Garrett	De Kalb
Walters, L. O.	Muncie	Delaware-Blackford
Wanninger, Horace	Richmond	Wayne-Union
Ward, H. H.	Coalmont	Clay
*Ward, J. W.	Mishawaka	St. Joseph
Ward, Wesley C.	Indianapolis	Marion
*Ware, J. R.	Andrews	Huntington
*Warfel, F. C.	Indianapolis	Marion
Warman, A. P.	Indianapolis	Marion
Warne, G. H.	Tipton	Tipton
Warren, Frank R.	Michigan City	La Porte
*Warren, John C.	Bicknell	Knox
*Warriner, James B.	Indianapolis	Marion
Warvel, J. H.	Indianapolis	Marion
Warvel, J. L. (H)	N. Manchester	Wabash
Washburn, Ira M.	Rensselaer	Jasper-Newton
*Washburn, Richard N.	Rensselaer	Jasper-Newton
*Washburn, W. W.	La Fayette	Tippecanoe
*Watson, Herman L.	Evansville	Vanderburgh
Watts, A. A.	Gary	Lake
Waymire, E. S.	Indianapolis	Marion
Weaver, T. M.	Brazil	Clay
*Weaver, Wm. W.	New Albany	Floyd
Webb, John W.	Indianapolis	Marion
Weber, Edgar H.	Evansville	Vanderburgh
Webster, R. K.	Brazil	Clay
Wedel, Frank L.	Atlanta, Ga.	Vigo
Weddle, Chas. O.	Lebanon	Boone
Weed, Lyle A.	Indianapolis	Marion
Weeks, P. H.	Michigan City	La Porte
*Weems, M. P.	Jeffersonville	Clark
Wegner, W. G.	South Bend	St. Joseph
Wehrman, J. O.	Indianapolis	Marion
*Weigand, C. G.	Indianapolis	Marion
Weil, H. J.	Indianapolis	Marion
Weinberg, Samuel	Marion	Grant
Weinstein, E. B.	Richmond	Wayne-Union
Weinstein, J. H.	Terre Haute	Vigo
Weirich, Charles	Butler	De Kalb
Weis, William D.	Crown Point	Lake
*Weiss, Eugene	South Bend	St. Joseph
Weiss, H. G.	Evansville	Vanderburgh
Weiss, Jason	Indianapolis	Marion
*Weissman, Irving	Fort Wayne	Allen
Welborn, J. Y.	Evansville	Vanderburgh
Welborn, Mell B.	Evansville	Vanderburgh
*Weldy, B. P.	Hartford City	Delaware-Blackford
Weller, Charles A.	Indianapolis	Marion
Wells, M. M.	Fairland	Shelby
Wells, Milo C.	Anderson	Madison
Welty, S. G.	Fort Wayne	Allen
Werry, L. E.	Hartford City	Delaware-Blackford
West, Joseph L.	Indianapolis	Marion
Westhafer, E. K.	New Castle	Henry
Westra, J. J.	Evansville	Vanderburgh
Weyerbacher, A. F.	Indianapolis	Marion
Whallon, Arthur J.	Richmond	Wayne-Union
Wharton, R. O.	Gary	Lake
Wheeler, Homer H.	Indianapolis	Marion
Wheeler, J. T. (H)	Indianapolis	Marion
Whipps, Charles E.	Carlisle	Sullivan
Whisler, F. M.	Wabash	Wabash
White, C. M.	Clinton	Parke-Vermillion
White, C. S.	Rosedale	Parke-Vermillion
White, Claude H.	Mooresville	Morgan
White, Donald J.	Indianapolis	Marion
*White, Harvey E.	Martinsville	Morgan
White, I. D.	Clinton	Parke-Vermillion
*White, James V.	Terre Haute	Vigo
White, W. J.	Gary	Lake
Whitehead, John M.	Indianapolis	Marion
*Whitlatch, Arthur	Milan	Ripley
Whitlatch, Bine	Milan	Ripley
Whitlatch, I. A.	Milan	Ripley
Whitlock, Francis	Indianapolis	Sullivan
*Whitlock, Merle E.	Mishawaka	St. Joseph
Whitsitt, S. A.	Madison	Jefferson
Whitten, Kathryn	Fort Wayne	Allen
Wickens, Mary	Richmond	Wayne-Union
Wicks, O. C.	Gary	Lake
Wiedemann, F. E.	Terre Haute	Vigo
Wiggins, D. S.	New Castle	Henry
Wiggins, George	New Castle	Henry
Wilber, H. R.	Jeffersonville	Clark
Wilcox, R. F.	La Porte	La Porte
Wilder, G. B.	Anderson	Madison
Wildman, R. E.	Peru	Miami
Wilhelmus, Charles M.	Newburgh	Warrick
Wilhelmus, Wm. M.	Evansville	Vanderburgh
*Wilkens, I. W.	Indianapolis	Marion
Wilkin, W. Ernest	South Whitley	Whitley
*Wilkins, R. W.	Fort Wayne	Allen
Willan, H. R.	Martinsville	Morgan
*Willett, I. H.	Fort Wayne	Allen
*Williams, A. H.	Fort Wayne	Allen
Williams, Berneice M.	New Haven	Allen
Williams, C. L.	Logansport	Cass
*Williams, Everett W.	Columbus	Bartholomew
Williams, F. M.	Anderson	Madison
*Williams, F. M., Jr.	Pendleton	Madison
*Williams, F. P.	Huntingburg	Dubois
Williams, George T. (H)	Crawfordsville	Montgomery
Williams, H. O.	Kendallville	Noble
Williams, John H.	Muncie	Delaware-Blackford
Williams, Luther	Indianapolis	Marion
Williams, Paul	Richmond	Wayne-Union
*Williams, R. H.	Anderson	Madison
Williams, Wm. H. (H)	Lebanon	Boone
*Willis, Charles F.	Evansville	Vanderburgh
Willis, Joseph H.	Evansville	Vanderburgh
Willison, George	Evansville	Vanderburgh
Willson, C. L.	Anderson	Madison
Wilson, E. R.	Red Bluff, Calif.	Marion
*Wilson, F. M.	Kokomo	Howard
*Wilson, Fred	Terre Haute	Vigo
Wilson, Guy	Bicknell	Knox
Wilson, J. L.	South Bend	St. Joseph
Wilson, J. P.	Scottsburg	Scott
Wilson, J. R.	Prairie Creek	Vigo
Wilson, L. A.	Michigan City	La Porte
*Wilson, Leslie	Fort Wayne	Allen
Wilson, O. E.	Elkhart	Elkhart
*Wilson, O. R.	Shelbyville	Shelby
Wilson, Paul	Boonville	Warrick
Wilson, P. H.	Logansport	Cass
Wilson, R. C.	Franklin	Johnson
Wilson, Ralph	Evansville	Vanderburgh
Wilson, Ralph	Shirley	Henry
Wilson, T. L.	Bloomington	Monroe
Wilson, W. L. (H)	Scipio	Jennings
Wiltshire, James W.	Bloomington	Monroe
Wimmer, G. G.	Huntington	Huntington
Wimmer, Robert N.	Gary	Lake
*Winebrenner, J. D.	Columbus	Bartholomew
Winstandley, W. C.	New Albany	Floyd
Winters, Matthew	Indianapolis	Marion
Wisch, L. J.	Whiting	Lake
Wise, Charles	Camden	Carroll
Wise, Wm.	Indianapolis	Marion
Wiseheart, Oscar H.	North Salem	Hendricks
Wisehart, Wm. (H)	Colfax	Clinton
*Wiseheart, Robert	Lebanon	Boone
Wiseman, V. Earl	Greencastle	Putnam
Wiseuer, G. H.	Richmond	Wayne-Union
Wishard, F. B.	Anderson	Madison
Wishard, Wm. N., Jr.	Indianapolis	Marion
Wishart, S. W.	Evansville	Vanderburgh
*Witkowski, L. J.	La Porte	La Porte
*Wolfram, Don J.	Indianapolis	Marion
Wolfstein, Isabel J.	Indianapolis	Marion
*Woner, John W.	Linton	Greene
Wood, Amelia T.	Muncie	Delaware-Blackford
Wood, Charles	Westport	Decatur
*Wood, Donald E.	Indianapolis	Marion
Wood, E. U.	Columbus	Bartholomew
Wood, George	Indianapolis	Marion
*Wood, O. L.	Brazil	Clay
*Wood, R. W.	Oakland City	Gibson
Wood, W. B.	Oakland City	Gibson
*Wood, W. H.	Evansville	Vanderburgh
Woodard, Abram S., Jr.	Indianapolis	Marion
Woodcock, C. E.	Greenwood	Johnson
Wooden, Edward I. (H)	Rushville	Rush
Woods, A. L.	Poseyville	Posey
*Woods, H. C.	Yoder	Huntington
*Woods, James R.	Greenfield	Hancock
Woods, W. P.	Evansville	Vanderburgh
Woods, Wm. V.	Indianapolis	Marion
Wooldridge, Omer	Kokomo	Howard
*Woolery, R. H.	Indianapolis	Marion
*Work, Bruce A.	Frankfort	Clinton
Work, James A.	Elkhart	Elkhart
Workman, W. S. (H)	Paoli	Orange
Worley, A. C.	Fort Wayne	Allen
*Worley, J. P.	Indianapolis	Marion
Worth, C. W.	Milroy	Rush
Wray, C. M.	La Fayette	Tippecanoe
Wright, Cecil S.	Anderson	Madison
Wright, E. D.	Seymour	Jackson
Wright, J. William	Indianapolis	Marion
Wright, W. C.	Fort Wayne	Allen
Wright, W. W.	New Castle	Henry
Wunderlich, Edwin E.	Terre Haute	Vigo
Wurster, H. C.	Mishawaka	St. Joseph
Wyatt, A. R. (H)	Fort Wayne	Allen
Wyatt, Fred H.	Evansville	Parke-Vermillion
Wyatt, James L.	Fort Wayne	Allen
Wybourn, R. C.	Ossian	Wells
Wyeth, Charles	Terre Haute	Vigo
Wygant, M. D.	Mishawaka	St. Joseph
Wyland, B. J.	Mishawaka	St. Joseph
Wynn, J. F.	Evansville	Vanderburgh
Wynne, R. E.	Bedford	Lawrence
Wyttenbach, Frederick	Indianapolis	Marion
*Wyttenbach, John E.	Indianapolis	Marion
Yarling, J. E. (H)	Peru	Miami
Yarrington, C. W.	Gary	Lake
*Yegerlehner, Roscoe	Kentland	Jasper-Newton
Yeneer, M. W.	Richmond	Wayne-Union

Name	City	County
Yocum, Boaz	Coal City	Owen
Yocum, P. S.	Gary	Lake
Yoder, Albert C.	Goshen	Elkhart
Yoder, D. D.	Columbus	Bartholomew
*Youman, Tom	La Fayette	Tippecanoe
Young, E. M.	Sheridan	Hamilton
Young, G. M.	Gary	Lake
*Young, G. S.	Muncie	Delaware-Blackford
*Young, John M.	Indianapolis	Marion
Young, Ralph H.	Goshen	Elkhart
Young, S. J. (H)	Kendallville	Noble
Young, W. C.	Indianapolis	Marion
Yung, J. Rudolph	Terre Haute	Vigo
*Yunker, P. E.	Evansville	Vanderburgh
Zallen, S. G.	East Chicago	Lake
*Zaring, B. K.	Columbus	Bartholomew
Zaring, E. T.	Terre Haute	Vigo
Zehr, Noah	Fort Wayne	Allen
Zerfas, L. G.	Merom	Sullivan
Zierer, R. O.	Anderson	Madison
*Zimmer, Henry J.	Mishawaka	St. Joseph
Zimmerman, R. G.	Berne	Adams
Zink, C. M.	Clinton	Parke-Vermillion
Zivich, J. M.	East Chicago	Lake
*Zweig, E. S.	Fort Wayne	Allen
*Zwerner, Paul F.	Terre Haute	Vigo
*Zwick, Harold	Decatur	Adams
*Zwickel, R. E.	Newburgh	Warrick

A.M.A. SECRETARIES' CONFERENCE

Postwar planning for medicine, the matter of obtaining still more physicians for the armed forces and public relations were some of the subjects discussed at the recent annual Conference of Secretaries and Editors in Chicago, on November 19 and 20, 1943.

President James E. Paullin indicated the scope of the postwar problem by pointing out that, even with the accelerated medical education program, there is an insufficient number of young physicians available to replace normal losses in civilian practice, and that, should the war end next year, approximately 20,000 physicians who never have been in civilian practice and who have no locations, might be immediately available—for what? Orderly distribution of these men to localities where needed, provision of further professional training both for these and for men at home, and the unpredictable number who may elect to remain in government service—all these make for complications. While an effort will be made to plan for this situation on a country-wide basis, Dr. Paullin suggested that much of the actual work would have to be done by the states and declared that supplying medical care to rural areas is and will be one of the greatest problems of medicine.

The "critical and immediate need" for 6,000 to 7,000 physicians for the armed forces, regardless of state quotas, was stressed. This figure is in addition to recent graduates and exists despite admission that the "expansion period" of the medical corps of the services is passed. Recently, the Army had been discharging more physicians than are being taken in, which, added to battle casualties, makes the need apparent. Various states are reëxamining available lists as well as lists of men previously rejected for minor disabilities in an attempt to find more physicians for the services.

Possibly the most eagerly awaited report was that from the new Council on Medical Care and Public Relations, a report which was received with varied reactions. It is obvious that the Council has had some organizational difficulties; it announced only recently that George Lombard Kelly, Dean of the Medical School, University of Georgia, has been named secretary. Establishment of a Washington office, a matter which has been the subject of brisk discussion in medical groups, apparently is considered inadvisable at present. It is plain that the Council is planning a long-term, constructive program—not merely opposition to hostile legislation of the moment—which will merit the support of the profession, which will not necessitate periodic revision, and which will go to the root of the problem involved. One gets the impression that the Council will not be content to outline a program that is merely defensive; it seems intent on offering something realistic, constructive and positive. It indicates that it will not be stampeded into advocating one general plan for providing medical care for all but is seeking ways to provide medical care for all those needing it, regardless of the number or where these persons are located. Obviously much of its public relations work will be along educational lines in which state and county medical groups will be utilized to the full.

While there was criticism of the Council for its seeming delay in getting started, general reactions were favorable. It is realized that its members are earnest, that they appreciate the seriousness of their position and that they evidence an encouraging degree of independence. Apparently the council understands the meaning of "public relations."

One could wish that certain officials of the AMA were not so confused as to "public relations" and "publicity," terms which appear to them synonymous.

Admitting that he had heard much criticism of the AMA because "it does nothing," President-elect Herman L. Kretschmer disagreed with this and termed much criticism of the organization mere propaganda. Declared Dr. Kretschmer, "Public relations of the AMA are being handled perfectly." He did not subscribe to the proposal that the AMA should have a publicity department because some felt the organization was "in bad with the public." He suggested that every physician spend two hours a day, combating the Wagner Bill by explaining it to his patients.

(Reprinted from THE BULLETIN of the Hennepin County Medical Society.)

Deaths

Martin Luther Arthur, M.D., of Patoka, died suddenly at his office on October twentieth. He was sixty-seven years of age. He graduated from the Medical College of Indiana, Indianapolis, in 1898. During World War I he served as a captain in the United States Army Medical Corps at Fort Riley, Kansas. Doctor Arthur was a member of the Gibson County Medical Society, the Indiana State Medical Association and the American Medical Association.

* * *

Arthur E. Burkhardt, M.D., of Tipton, died at a hospital at Elwood on October nineteenth, at the age of sixty-seven. He was a graduate of the Indiana University School of Medicine, in 1908. Doctor Burkhardt had practiced at Tipton continuously since his graduation and was a member of the American Association of Railroad Physicians and Surgeons. He was a member of the Tipton County Medical Society and the Indiana State Medical Association, and he was a Fellow of the American Medical Association.

* * *

H. Monford Cox, M.D., of Indianapolis, died at a local hospital on October fourteenth. He was fifty-one years of age. Doctor Cox graduated from the Indiana University School of Medicine, Bloomington, in 1921. He was a member of the Marion County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Daniel Dean, M.D., Hardinsburg, died at Madison on November fourth, aged seventy-eight. He graduated from the Hospital College of Medicine, Louisville, in 1903.

* * *

B. Franklin Eikenberry, M.D., of Peru, died at his home on October twenty-third, at the age of seventy-four, following a long illness. He had practiced at Peru about forty-eight years. He graduated from the Hahnemann Medical College and Hospital, Chicago, in 1896. Doctor Eikenberry was a member of the Miami County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Reuben F. Frost, M.D., of Huntington, died on November second. He was eighty-six years of age. He had practiced at Huntington for more than fifty years and had served as secretary of the City Board of Health for twenty-five years. He graduated from the College of Physicians and Surgeons, Baltimore, in 1892. Doctor Frost was a member of the Huntington County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Leonidas B. Johnson, M.D., of Ireland, died on November fifteenth, at an Evansville Hospital. He was eighty-five years of age. He graduated from the Hospital College of Medicine, Louisville, in 1885, and had practiced at Otwell, Oakland City and Dale before coming to Ireland where he practiced for nearly fifty years. Dr. Johnson was a member of the Dubois County Medical Society, the Indiana State Medical Association and the American Medical Association.

* * *

Frank W. Kern, M.D., formerly of Brecksville, Ohio, died at Seymour on October twenty-ninth. He was sixty-two years of age. He had returned to Seymour on August twenty-third, having practiced in Jackson County for fifteen years prior to moving away from Seymour. He graduated from the Louisville Hospital and Medical College in 1908.

* * *

John H. Lee, M.D., formerly of Cannelton, died at a Terre Haute hospital on October twenty-seventh. He was eighty-six years of age. He graduated from the Kentucky School of Medicine, Louisville, in 1885.

* * *

Omar H. Rees, M.D., of Knightstown, aged seventy-six, died at his home on October twenty-fourth. He was Knightstown's eldest physician and surgeon, and located there in 1911. He graduated from the Medical College of Indiana, Indianapolis, in 1900. He was a member of the Henry County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Gerald Hayden Stoner, M.D., Valparaiso, died at his home on November third. He was sixty-nine years of age. He had practiced in Valparaiso for thirty-seven years, having graduated from the Chicago College of Medicine and Surgery in 1905. He served overseas as a captain in the Medical Corps during World War I. Doctor Stoner was a member of the Porter County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Archibald A. Southwick, M.D., of Kendallville, died on November fourth, at the age of fifty-eight. He graduated from the University of Wooster Medical Department, Cleveland, in 1912. During World War I he served overseas. Doctor Southwick was a member of the Noble County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Military News

Captain Frank P. Albertson, of Trafalgar, is in a South Pacific evacuation hospital following injuries sustained at Guadalcanal in September. Prior to that he was stationed with the Army Medical Corps in Hawaii for sixteen months.

Captain Bellfield Atcheson, Medical Corps, Army of the United States, and Genevieve LaBree were married at The Post Chapel, Camp Perry, Ohio, on November eighteenth. Immediately following the ceremony a reception was given at the Officers' Club, Erie Proving Ground, La Carne, Ohio. Captain Atcheson is from Gary, Indiana.

While actively engaged with the Army in the South Pacific, a commission was delivered to Dr. Robert M. Butterfield, former Muncie physician, promoting him to a captain. His address is MCO-333607, A.P.O. No. 453, c/o Postmaster, San Francisco, California.

Major M. Cornacchione was a recent visitor at his home in Indianapolis, before leaving for Randolph Field, Texas, where he will take a post-graduate course in Aviation Medicine. He had previously been chief surgeon at the Baer Field Hospital, Fort Wayne, since May, 1942.

A Valparaiso physician, Major J. E. Dittmer, has been promoted to the rank of major. He is serving as chief of the Out-Patient Service at the Fletcher General Hospital, near Cambridge, Ohio, which is operated by the Army.

Thus reads a report received from Lieutenant Raymond Ellis Nelson, of South Bend: "We have just finished the traditional sighs of relief at the termination of another campaign. Landed in Sicily on July tenth, and had quite an interesting time for a few days. The Yanks, both on the ground and upstairs, really did a bang-up job here. And the Navy—it was tops. The picture right now doesn't look too encouraging for Hitler and Company."

"For gallantry in action while engaged in the bombing of a strongly fortified enemy-held island air base in the Central Pacific area" Major Joseph E. Walther, a native of Rushville, was decorated with the Silver Star in ceremonies at Hickam Field while serving as an assistant surgeon with the air forces in Hawaii. This is the second medal received by him for heroism. Major Walther recently visited in Indianapolis while on leave of absence.

Major George F. Freen, of South Bend, is reported as having become too engrossed in the operation of a construction crew for his own welfare and ended up in the Army hospital for some surgery. He is at Fresno, California.

Major Marion W. Hillman, of South Bend, writing from Florida, says that his group gets hotter than a firecracker and all set for overseas movement, then something happens and all are cooled off markedly. He is called a group surgeon and has been kept busy examining men for overseas fitness, and states that a considerable number are sent home because they do not meet the requirements of M.R. 1-9.

Dr. George E. Iterman, New Castle physician, has been promoted to a colonel and has been transferred to Fort Stevens, Astoria, Oregon, where he is the commanding officer of a hospital.

Announcement has been made by the War Department of the promotion of Dr. Frank W. Ratcliff, of Lafayette, from Captain to Major. Major Ratcliff is stationed in New Orleans.

Lieutenant Colonel John Lansford, of Redkey, happened to meet a boy from his home town during an air raid in the South Pacific. He said, "Imagine having guests to tea in a slit trench." He had also recently seen Dr. F. E. Keeling, of Portland, and Dr. J. T. Oswalt, of Dunkirk.

Imagine the coincidence of meeting your own daughter in Africa! That was the experience of Major Fred Newton Daugherty, of Crawfordsville. Mrs. Daugherty explained that the girl really is not their daughter, but that they like to think of her as such, for she had lived in their home all through high school. Her name is Virginia Haase. She and Major Daugherty were in New York at the port of embarkation at the same time, but were unable to locate each other because they were in different hospitals. However, about the first person he saw when he stepped off the boat in Africa was Virginia, and they were located about two miles apart for several months. Later Virginia served on the front lines in the Sicilian campaign. Major Daugherty reported having seen two other Crawfordsville folk and that the four of them had a good meal together, with lots of home talk.

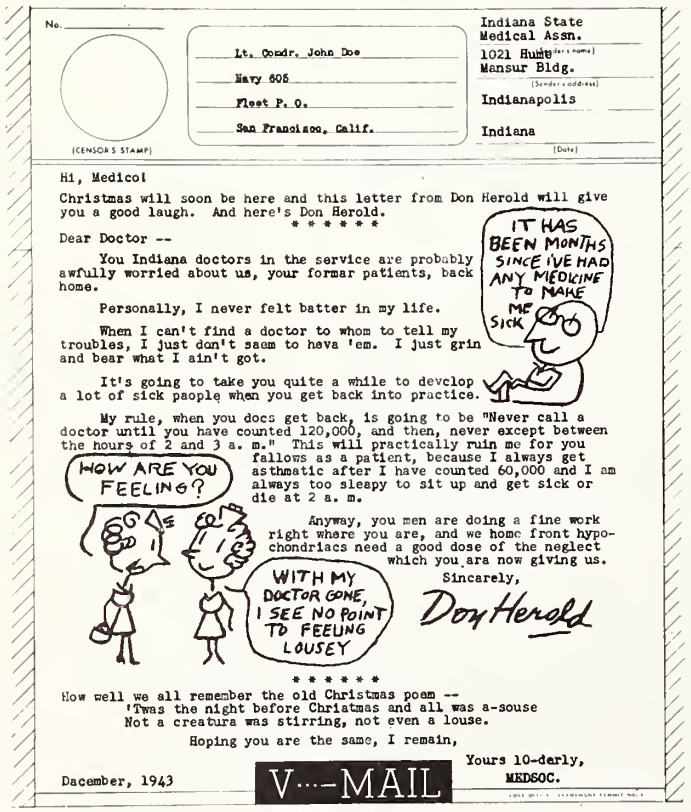
The newsletter sent out by the Delaware-Blackford County Medical Society has given us a bit of information concerning the members of that organization.

Lieutenant Irwin S. Hostetter, of Muncie, is on an island in the South Pacific. He says that the quarters and food are good, and that he feels rather sorry for us here at home with all the food and liquor rationing.

Lieutenant Nihil Kemper Venis, of Muncie, is in North Africa. He reported having been "Johnny on the Spot" and will have an interesting story to tell on his return. He has been in Bizerte, which is bombed flat, also Tunis, which is a nice town.

Captain John R. Hurley, of Muncie, is somewhere in Australia. He reported that the crossing was without event and that the water in the Pacific is the most beautiful shade of blue he ever saw. He left just as summer was coming on and arrived in the middle of winter. The stores all remind him of the horse-and-buggy days. Their camp is being built up by the sweat of their own brows. Anyhow, they are very comfortable, and he believes that he might even enjoy a leave to that area some day.

A Merry Christmas to Hoosier physicians from Don Herold:



No.

(CENSOR'S STAMP)

Lt. Comdr. John Doe
Navy 605
Fleet P. O.
San Francisco, Calif.

Indiana State Medical Assn.
1021 Hume (Sender's name)
Mansur Bldg.
(Sender's address)
Indianapolis
Indiana
(Date)

Hi, Medico!

Christmas will soon be here and this letter from Don Herold will give you a good laugh. And here's Don Herold.

* * * * * *

Dear Doctor --

You Indiana doctors in the service are probably awfully worried about us, your formar patients, back home.

Personally, I never felt batter in my life.

When I can't find a doctor to whom to tell my troubles, I just don't saem to heva 'em. I just grin and bear what I ain't got.

It's going to take you quite a while to devclop a lot of sick paople when you get back into practice.

My rule, when you docs get back, is going to be "Never call a doctor until you have counted 120,000, and then, never except between the hours of 2 and 3 a. m." This will practically ruin me for you fallows as a patient, because I always get asthmatic after I have counted 60,000 and I am always too sleapy to sit up and get sick or die at 2 a. m.

Anyway, you men are doing a fine work right where you are, and we home front hypochondriacs need a good dose of the neglect which you ara now giving us.

Sincerely,

Don Herold

* * * * * *

How well we all remember the old Christmas poem --
'Twas the night before Chriatmas and all was a-souse
Not a creatura was stirring, not even a louse.

Hoping you are the same, I remain,

Yours 10-derly,
MEDSOC.

December, 1943

V···-MAIL

Lieutenant Ramon A. Henderson recently visited his home at Muncie. He is with an outfit of engineers at Camp Claiborne, Louisiana.

Lieutenant Gerald S. Young, of Muncie, is reported with a strictly "hush-hush" outfit, but was well and enthusiastic about his work when last heard from.

We are informed that Dr. B. V. Klain, of Indianapolis, has been promoted to the rank of captain. Captain Klain is stationed at Gulfport, Mississippi.

Clarence G. Kern, M.D., of Lebanon, has been promoted to a captain and is on the staff of the station hospital at Ellington Field, Texas.

Lieutenant Commander D. A. Morrison, of the United States Navy, of Kokomo, reported that he has been looking all over the Southwest Pacific for those so-called "luscious islanders," but so far hadn't seen one of the "movie version" type. Commander Morrison has been in the service six months; says it seems about that many years. It is apparent that he has been going places since leaving the U.S.A. The only Indiana physicians he has come across in the Pacific area are William E. Barnett, of Logansport, and Thomas G. Graham, of Lafayette, and that was during his first week of service there.

The following letter was received from Captain Russell L. Arbuckle, of Indianapolis, who has been in Africa about eleven months:

"Today I received the June and July issues of THE JOURNAL, and while I have not yet read them from cover to cover, I assure you that I will do just that—I always do.

"The hot, dry weather which we have enjoyed (?) now has come to an abrupt end, and we have had two days of continuous rain. It certainly does not take long for the parched earth to become a sea of mud, and while our shoes become easily bogged down, our spirits never do. The one thing that has impressed me most of all is that the practice of medicine knows no physical barriers but goes on in tents, fox holes, mud and sand, as well as in the immaculate hospitals and doctors' offices back home. We medics in Africa are proud of our record; our morbidity and mortality in the face of the fiercest fighting in history is silent proof that we are on the job. We are doing our part—give us something worth while to come home to."

In September Captain A. W. Kistmer, of Elkhart, was promoted to a major, and he is now a post surgeon in charge of all medical personnel at his post somewhere in England.

Dr. L. J. Witkowski, who has been medical director at the Kingsbury Ordnance Plant at LaPorte, has been commissioned a lieutenant and was ordered to report at Carlisle Barracks, Pennsylvania.

We have learned that Dr. George W. Wagoner, of Burrows, has been promoted to a captain. Captain Wagoner is stationed at Boca Rotan Field, Florida.

Lieutenant Commander H. H. Slominski, of South Bend, says that the rumors about him being injured were all wrong; that he has never received a scratch and is as fit as a fiddle. In fact, he never felt better. Wherever he is located, he speaks of it being a paradise, and he is working in a modern air-conditioned building.

Advancement to the rank of major has been given Dr. P. C. King, of Swayzee, who is stationed at Fort Logan, Colorado.

Dr. Robert M. LaSalle, of Wabash, is now a major in the Army Medical Corps. Major LaSalle has been stationed in Sicily for several months.

After three years of active service, Major R. E. Lyons, Jr., of Bloomington, has been given an honorable discharge because of physical disabilities. He has reopened his office in Bloomington.

Captain Leonard L. Nesbit, Anderson physician, has been home on a sick leave following a major operation. He had been on duty with the Army Medical Corps at Louisville, Kentucky.

A Jasonville homecoming was celebrated in North Africa by Drs. Carl M. Porter and Harry Rotman, who met in a restaurant there recently. Needless to say they had lunch together, and even met on a few other occasions after that.

An Elkhart physician, Vernon K. Pancost, has been advanced to a captain. He is at an Army air base at Fort Dix, New Jersey.

Dr. Clarence H. Rommel, of Lafayette, is now a major and is serving as staff surgeon of a general hospital at Spadra, California.

Major Herbert L. Sedam, of Indianapolis, who is now serving overseas, has informed us that he has sent a German medical officer's kit to his home address, 2429 N. Alabama Street, and that if and when it arrives we may have the privilege of examining it. That will, undoubtedly, be of interest to all his colleagues back home.

The following are excerpts from a letter written by Captain Robert J. Miller, of Evansville, who is now in North Africa:

"I am dropping you and the fellow members of the Indiana State Medical Association a few lines. I have been practically across North Africa in the past six months.

"The rainy season has now set in with its mud and bone-piercing chilliness. When the sun does shine it is quite comfortable, but at night it is really cold.

"Flies are still a major nuisance and sanitary problem. The flies over here just can't seem to get used to a healthy Yankee swat or brush off. They pester us until we take dead aim and finish Mr. Fly. I sometimes think that the natives here are the cause of the flies being so tenacious, since the natives never bother to even brush them off their mouths. An *Arab* fly takes all prizes for a Class A pest.

"Mosquitoes are still here; however, Uncle Sam has a wonderful mosquito net which not only gives us ample protection against mosquitoes, but completely thwarts the African flies."

We have been favored with a letter from Lieutenant Commander E. Rogers Smith, of Indianapolis, who is with a U.S.N. Mobile Hospital. His location can not, of course, be revealed. He says:

"I'm pleasantly situated in a nice new Naval Mobile Hospital. We came down with the new skipper who is the No. 1 N.P. man of the Navy, and while the hospital will remain a general mobile hospital, we will later have a greatly enlarged N.P. department. At present there are five psychiatrists on the staff, and no doubt this number will be trebled or quadrupled in the future.

"I didn't get out in time to see Byron Rust before he left, and I think Dick Appel was out fishing when I was near his alleged hangout. I've had several nice visits with Colonel Longfellow, who is commanding officer near here. He graduated from I.U. in '25 and has been in the regular Army ever since. These are about my only Hoosier contacts since leaving the states.

"I disgusted all my confreres on the trip out by my refusal to become seasick. Little did they realize what a brass-lined stomach results from a steady diet of corn. We remained 'sub' conscious for most of the trip, but apparently the Japs refused to waste fish on a handful of psychiatrists.

"Since being ashore I have had unusual difficulty in adjusting these senile cerebral arterioles to the mixed-up seasons, 'Corrigan' traffic and the iron and confederate money these people use. I'm definitely a sucker for a short change artist. However, when they sell me two bottles of Scotch or Bourbon, I simply smile and let them make their own change. Doesn't sound much like Harvey Belton's prices to me.

"Give my regards to all in the office and tell some of the boys in the back room to break up the game long enough to write 'Sindbad the Sailor.' "

Captain Bryce Weldy, of Hartford City, is somewhere in England and is stationed at a base which is very comfortable and is better than any he was in while in the states, except for the food. It seems that he is getting somewhat weary of powdered eggs, brussels sprouts and Spam. Most of you have undoubtedly read the *Time* magazine which quoted Bob Hope as having told the people in England about one of our hardships on the home front—"There is a shortage of powdered eggs, and we are forced to use the old-fashioned kind that you break."

This message is from Captain Eugene W. Austin, son of our past president, Dr. M. A. Austin, of Anderson. We were indeed pleased to have this contribution to THE JOURNAL, and his message is most interesting:

I am a squadron flight surgeon for a heavy bombardment squadron in the Southwest Pacific Area. Its a damn good job for anyone who likes it. Fortunately, I do like it very much. I have to play nursemaid to a bunch of flying personnel at times, but they are swell fellows.

The actual work is not hard. We still have the same routine of Army medical red tape, so no matter where we go we must take a typewriter and a good clerk with us. I think that with these two, plus an array of the sulfa drugs, paregoric, aspirin, stock solution and the sickbook, we could go almost any place in this war. Sometimes it isn't quite as simple as that, especially when the enemy decides to shoot bullets and what have you.

Fortunately, our casualties have been very slight considering everything in general. Most of the wounds are clean cut and not the jagged type. There have been several fractures due to projectiles, but they seem to cause very little trouble. As a matter of fact, it is possible to have a man in the hospital within one to four hours from the time that he is injured. Those I would say are the maximum limits. That is almost better than you can do back in the states.

I have seen a great deal of malaria, considerable dysentery, and lots of strange skin diseases which, if I can't take care of, I sent out to Rollie Miller, a classmate of mine, and between the two of us—mainly by me letting him alone—the patient gets better.

Minor lacerations are very easily infected over here, and most things will heal slowly. It takes a h—l of a long time to clear up urethral discharges.

At the present time the most important thing that we are thinking about is, when are we going to get home? It looks like it will be at least two years, but then you can never tell.

Sorry that I can't give you any more detailed information, but we really act only as a clearing house for the more serious cases. Give Dad my regards when you see him, and I hope that I will get to see the old state before too long.

Captain Dick J. Steele, of Greencastle, is stationed at Gunter Field, Montgomery, Alabama.

Captain Roy A. Geider, of Indianapolis, who is stationed Somewhere in Sicily, could not oblige in submitting an article, but he favored us with the following letter:

"Your request of August third just received today, and it is with deep regret that I find myself unable to write an article of my activities and meet your deadline of early next month. The mail is doing a wonderful job, but I fear that it could not hurdle such an obstacle. Your idea is one of unusual merit and I trust that not too many others on foreign service will find that they, too, are unable to co-operate for the same reason as mine.

"The Auxiliary Surgical Groups consist of men who limit themselves to some surgical specialty, and according to their specialties are made up into teams. These teams are used as auxiliary personnel wherever and whenever needed, according to the type and press of work encountered by the various medical installations. I have been working as an anesthetist with a general surgical team.

"I arrived in England in December and spent two valuable and interesting months working in various hospitals with outstanding British anesthetists.

"Arriving in North Africa in February, I again worked in a British hospital during the Tunisian campaign. It was interesting work and was my first introduction to war surgery and battle conditions. At the end of this campaign there was a rest period.

"I came into Sicily with the first wave of the invasion and worked throughout this campaign with an American Field Hospital. I feel most fortunate in being able to continue in the Army with the type of work which I was doing in civilian practice. Many have not been so lucky, I know.

"Best regards to all my friends and best wishes for a most successful December issue of THE JOURNAL, to which I shall be looking forward with joyful anticipation."

COUNTY MEDICAL SOCIETY

ANNUAL SECRETARIES' CONFERENCE

INDIANAPOLIS ATHLETIC CLUB

SUNDAY

JANUARY 23, 1944

Everyone invited

See complete program in January issue

WHAT WENT ON DURING WORLD WAR I

This number concluded the eleventh volume of THE JOURNAL. Prior to its establishment the proceedings of the Indiana State Medical Association were printed in an annual publication, entitled "The Transactions of the Indiana State Medical Society." Almost a complete set of these Transactions is on file in the library of THE JOURNAL.

* * *

The scientific section was made up of four papers, with a variety of subjects; C. C. Pierce, Assistant Surgeon General of the United States Public Health Service, had contributed an article, "Reporting Venereal Diseases"; Editor Bulson wrote on "Syphilis, as it Pertains to the Eye"; H. H. Wheeler, of Indianapolis, wrote on "A Study of the Anus, Rectum and Sigmoid"; C. G. Beall, of Fort Wayne, then at Camp Pike, Arkansas, wrote on "Cerebrospinal Meningitis (Epidemic)."

* * *

Influenza, which by this time had assumed epidemic proportions in most sections of Indiana, came in for much editorial discussion, at least three of the editorials having to do with that subject.

* * *

A black-faced, double-leaded editorial was presented by Executive Secretary Schortemeier concerning the urgent necessity of prompt payment of the annual dues. It seems that the postal folk had cracked down on all publications, requiring them to purge their mailing lists, eliminating all who were not paid to date. The state dues, by the way, were four dollars.

* * *

General Pershing, in addressing his troops at the beginning of one of his numerous drives, is quoted as saying to them, "Hell, Heaven and Hoboken by Christmas!"

* * *

At 10:00 A.M., November 11, 1918, the War Department discontinued the commissioning of physicians in the Medical Corps. (This hour, as you well recall, was the beginning of the Armistice.)

* * *

The editor complained about the mail service, stating that it took as much as three days for a letter mailed at Fort Wayne to reach Indianapolis, and about the same time for a similar letter to be delivered in Chicago. He declared that the express service was even worse.

* * *

General complaint was being made that the State Medical Board was doing nothing about the drugless folk dispensing medicines and writing prescriptions. It was stated that several other states were successfully prosecuting such offenders.

* * *

Dr. Herman Morgan, Indianapolis, had been appointed the Indiana member of a Federal Board in a fight against venereal diseases.

"The German people are guilty of all the crimes in the calendar, but are now asking for magnanimous treatment, in the name of humanity." Thus did Editor Bulson again express himself on this subject.

* * *

Government operation of railroads, the express companies and the telegraph services was being almost universally condemned, the claim being made that all these services were materially hampered because of general inefficiency.

* * *

A chain drug store system, operating in the western section of the country, had announced that, beginning December first, their stores would refuse to sell medicines for the self treatment of venereal diseases.

* * *

It was estimated that several thousand physicians now in the Medical Corps would not be discharged at once, but would be required to remain in service for several months. (We recall that some members of the Medical Corps contacted their representatives in Congress, who were able to hasten such discharges.)

* * *

Quote: "One of the rules adopted by the Brown County Board of Health in the recent influenza epidemic was that all children found on the streets were arrested."

* * *

Dr. Frank B. Wynn, Indianapolis, was the author of an article in *The Medical Pickwick*, entitled "Terramas," the word meaning "Lover of the Earth." This article had to do with a mountain-climbing expedition participated in by the author, together with other Indianapolis physicians.

* * *

The Jay County Medical Society had adopted the following resolution: "That, after January 1, 1919, no member of the Jay County Medical Society shall attend or answer calls for medical or surgical services for persons who have not by that date settled by cash or note all unpaid accounts of any or all physicians of said society then in military service and absent from their place of business."

* * *

Surgeon General Merritt W. Ireland had visited his home town, Columbia City, and while there had addressed the local medical society. During the course of his remarks he strongly advocated universal military training in the United States.

* * *

Five Indiana counties, Howard, Grant, Vigo, DeKalb and Lake, had held elections in the matter of constructing tuberculosis hospitals. In each of these counties the vote was overwhelmingly large in favor of the proposals.

News Notes

The Indiana Association of the History of Medicine held a meeting in the Staff Room at St. Vincent's Hospital, Wednesday evening, November tenth. Dr. A. C. Corcoran of the Lilly Research Laboratories gave a very interesting talk on "The Influence of Medicine on Literature."

George H. Van Kirk, M.D., of Kentland, who has served as a major in the United States Army at a North Carolina camp for the past two years, has been discharged and will resume his practice at Kentland.

Dr. Everett A. King, director of Public Health for the City of Evansville and Vanderburgh County, has been recalled for service with the United States Public Health Service and ordered to report to the commandant of the Ninth Naval District, Great Lakes Naval Training Station.

Richard Milton May, M.D., of Hobart, has moved to Gary, where he has accepted an appointment as assistant surgeon at the Carnegie-Illinois Steel Company.

Walter H. Vance, of Fort Wayne, who has been a captain in the Army Air Corps at Hunter Field, Savannah, Georgia, for a year and a half, has been placed on inactive status and has reopened an office at Fort Wayne.

Dr. O. E. Brendel, of Zionsville, was appointed by Governor Schricker as chairman of the State Board of Beauty Culturist Examiners, to succeed Dr. Daniel L. Bower, of Indianapolis.

Dedication of the newly-constructed $350,000 addition to the Gary Methodist Hospital took place Sunday afternoon, October twenty-fourth, with Bishop Titus Lowe, of Indianapolis, officiating. This increased the total bed capacity to 260 beds, an increase of 131 beds.

Joseph P. Griffin, M.D., of Knox, has moved to Wanatah, where he is establishing his residence and practice.

Lester H. Hopkins, M.D., who practiced at Versailles for some time, later moving to New Orleans, has opened an office at Batesville, Indiana.

Dr. Gerald E. Fisher and Miss Bonlyn Stone, of Indianapolis, were married at the Thirty-first Street Baptist Church, in Indianapolis, on November seventh. Doctor Fisher graduated from the Indiana University School of Medicine in August and is taking his internship at the Indianapolis City Hospital.

Dr. D. D. Nelson, a member of the medical staff of the Bendix Aviation Corporation, of South Bend, has been appointed as physician in charge of the United States Public Health Clinic in that city.

Former Bloomington physician, Dr. Howard W. Byrn, has moved to Indianapolis and is at present occupying the office of Dr. Maurice V. Kahler who is in the United States Navy.

Dr. De Witt Loomis, of Boonville, was recently appointed on the medical staff of the Southern Railway and is the acting company surgeon at Boonville.

Dr. Naomi Dalton, of Bloomington, has opened an office in Ellettsville, on a part-time basis. Ellettsville has been without a physician for about three months, and Dr. Dalton is opening an office there as a service to that community.

Dr. Berneice Williams, of New Haven, has resumed her practice in the office of Dr. G. A. Smith. She was formerly associated with Dr. Smith.

Dr. Kenneth L. Craft has been elected to membership in the American College of Allergists under the classification of Allergy of the Eye, Ear, Nose and Throat.

Lake County residents term its annual March of Dimes as a march back to health, for since last July when infantile paralysis struck the county seventeen children have been hospitalized in the St. Catherine Hospital, in East Chicago. The *Hammond Times* of October twenty-ninth reported that in addition to the equipment the Lake County fund has paid for all the nursing care for these cases. We quote: "The Lake County Medical Society, thanking officers and contributors to the fund, said: 'Without this equipment and nursing care medical science would be sorely handicapped and often defeated in its effort to return Lake County children afflicted with poliomyelitis to healthy, happy, normal lives.'"

A. M. A. SCIENTIFIC EXHIBIT

The Scientific Exhibit at the Chicago Session of the American Medical Association, June 12-16, 1944, will be held at the Palmer House. Exhibits will cover all phases of medicine and the medical sciences, with particular emphasis on graduate medical instruction for the physician in general practice. Application blanks for space in the Scientific Exhibit are now available and may be obtained by communicating with the Director, Scientific Exhibit, American Medical Association, 535 N. Dearborn Street, Chicago 10, Illinois.

RADIO CALENDAR FOR DECEMBER

Station WISH, Indianapolis—Fridays, 9:30 A. M.—"YOUR DOCTOR SPEAKS"

December 3—"Why Health Examinations in Schools"
December 10—"Health and Juvenile Delinquency"
December 17—"Diet in Wartime"
December 24—"Medicine in Three Wars"
December 31—"Outlook for Medicine in 1944"

Station WIRE, Indianapolis—Sunday, 9:30 A. M.

December 12—"History of Medical Education in Indiana"

The series "Your Doctor Speaks" over WISH in Indianapolis began on November 19, with a program on "Your Nerves and the War," presented by Captain Sprague H. Gardiner, chief of the Neuropsychiatric Section of Billings General Hospital, Major Earl Mericle of the induction center, and a practicing psychiatrist who appeared anonymously. The November 26 program on "Hypertension" was presented by Dr. Kenneth G. Kohlstaedt, assistant superintendent of the Indianapolis City Hospital, Dr. Robert E. Jewett and Thomas Hendricks.

THE SIXTH ANNUAL FORUM ON ALLERGY

The Sixth Annual Forum on Allergy will be held in the Statler Hotel, St. Louis, Missouri, on Saturday and Sunday, January 22-23, 1944. This is a meeting to which all reputable physicians are most welcome, and where they are offered an opportunity to bring themselves up to date in this rapidly advancing branch of medicine by two days of intensive post-graduate instruction. For instance, the fifteen study groups, any three of which are open to him, are so divided that those dealing with ophthalmology, otolaryngology, pediatrics, internal medicine, dermatology and allergy run consecutively. In addition, the study groups are arranged on the basis of previous registration. In this way, as soon as the registrations are completed, the registrant is expected to write the group leader and tell him just what questions he wants brought up in the discussion. Attention is also called to the fact that during these last two days almost every type of instructional method is employed. Special lectures by outstanding authorities, study groups, pictures, demonstrations, symposia and panel discussions.

AMERICAN BOARD OF OPHTHALMOLOGY EXAMINATIONS

The American Board of Ophthalmology reports the deadline for filing applications for the 1944 examinations, as follows: New York City, June . . . December 15, 1943; Chicago, October . . . April 1, 1944. All applications received after January 1, 1944, will be subject to the increased total fee of seventy-five dollars.

Immunization of children had again been undertaken in various schools, Ripley, Gibson, Sullivan and Parke counties having announced county-wide programs. In Ripley County the program is sponsored by the Ripley County Medical Society in cooperation with the County Public Health Nurses; in Gibson County by the Medical Society, the District Health Office and the City Board of Health; in Sullivan County by the Sullivan County Medical Society; and in Parke County by the Parke County Medical Society, the school officials and the Indiana State Board of Health.

INDIANA UNIVERSITY NEWS NOTES

Physical rehabilitation of the Army's war wounded will be under the direction of an Indiana University woman, Mrs. Winifred C. Kahmann, director of occupational therapy and physiotherapy at the Indiana University Medical Center. The appointment of the Indiana University staff member as superintendent of the new occupational therapy program of the surgeon general's office of the Army has been announced by the War Department.

Mrs. Kahmann has been associated with the university since 1926, first as director of occupational therapy of the James Whitcomb Riley Hospital and later superviser in that field of work for the entire medical center. The Junior League of Indianapolis, recognizing the value of her work, has contributed more than $150,000 for its support. She has been given a leave of absence by the university to begin her new duties in Washington, November seventeenth.

Captain G. W. Wolff, for many years in charge of the R.O.T.C. training at Arsenal Technical Training and Washington high schools, in Indianapolis, has been assigned as commanding officer of medical and dental students on active Army duty status at the Indiana University Medical Center.

Captain Wolff, a native of Sandusky, Ohio, has been transferred to the medical center from Camp Perry, Ohio, and succeeds Lieutenant Cecil R. Brill, who has been assigned to the Army staff on the university's Bloomington campus. The medical and dental students who are pursuing their courses in Army uniforms compose Company C of the 1551st Service Unit, A.S.T.P., commanded by Colonel R. L. Shoemaker, head of the Indiana University Military Department.

Society Reports

INDIANA STATE MEDICAL ASSOCIATION

HOUSE OF DELEGATES

(INDIANAPOLIS SESSION, 1943)

First Meeting

The first meeting of the House of Delegates of the 1943 session was held in the Assembly Room of the Claypool Hotel, Indianapolis, convening at 4:00 p.m., September twenty-eighth; the president, Dr. C. H. McCaskey, of Indianapolis, presiding.

On motion of Dr. F. T. Romberger, seconded by Dr. J. R. Frank, the attendance slips which had been distributed were made to constitute the roll call of the House. These slips showed the following members present:

County	*Delegates*
Adams	James M. Burk, Decatur
Allen	M. B. Catlett, Fort Wayne
	M. R. Lohman, Fort Wayne
	Wm. C. Wright, Fort Wayne
Bartholomew	Joseph E. Dudding, Hope
Benton	V. L. Turley, Fowler
Boone	Ralph J. Harvey, Whitestown
Carroll	Max R. Adams, Flora
Cass	B. W. Egan, Logansport
Clark	E. P. Buckley, Jeffersonville
Clay	J. F. Maurer, Brazil
Clinton	John A. VanKirk, Frankfort
Dearborn-Ohio	G. S. Fessler, Rising Sun
Decatur	J. T. Morrison, Greensburg
DeKalb	W. W. Swarts, Auburn
Delaware-Blackford	Clay A. Ball, Muncie
	L. G. Montgomery, Muncie
Dubois	Paul J. Blessinger, Jasper
Elkhart	A. C. Yoder, Goshen
Floyd	John Habermel, New Albany
Fulton	A. E. Stinson, Rochester
Greene	King L. Hull, Bloomfield
Hamilton	Robert F. Harris, Noblesville
Hancock	J. E. Ferrell, Fortville
Harrison	William E. Amy, Corydon
Henry	W. U. Kennedy, New Castle
Huntington	C. S. Black, Warren
Jackson	G. H. Kamman, Seymour
Jay	George V. Cring, Portland
Jefferson	Nicholas A. Kremer, Madison
Johnson	Oran A. Province, Franklin
Knox	M. L. Curtner, Vincennes
Lake	H. W. Eggers, Hammond
	W. H. Howard, Hammond
	P. Q. Row, Hammond
Lawrence	Claude Dollens, Oolitic
Marion	Otto H. Bakemeier, Indianapolis
	E. F. Boggs, Indianapolis
	George J. Garceau, Indianapolis
	Kenneth G. Kohlstaedt, Indianapolis
	Goethe Link, Indianapolis
	M. W. Manion, Indianapolis
	Ben B. Moore, Indianapolis
	R. H. Moser, Indianapolis
	Roy V. Myers, Indianapolis
	J. O. Ritchey, Indianapolis
	Marion R. Shafer, Indianapolis
	Wm. Niles Wishard, Jr., Indianapolis
Marshall	A. A. Thompson, Tyner
Miami	H. E. Line, Chili
Montgomery	T. Z. Ball, Crawfordsville
Orange	C. E. Boyd, West Baden Springs
Owen	R. H. Richards, Patricksburg
Porter	J. R. Frank, Valparaiso
Posey	W. E. Jenkinson, Mt. Vernon
Randolph	J. S. Robison, Winchester
Ripley	M. F. Daubenheyer, Charlestown
Rush	C. C. Atkins, Rushville
St. Joseph	Morris Balla, South Bend
	A. S. Giordano, South Bend
	George M. Rosenheimer, South Bend
Scott	M. L. McClain, Scottsburg
Shelby	W. D. Inlow, Shelbyville
Sullivan	J. R. Crowder, Sullivan
Tippecanoe	Gordon A. Thomas, Lafayette
	Earl VanReed, Lafayette
Tipton	S. M. Cotton, Goldsmith
Vanderburgh	Minor Miller, Evansville
	Robert R. Acre, Evansville
Vigo	Ernest O. Nay, Terre Haute
	M. C. Topping, Terre Haute
Wabash	O. G. Brubaker, North Manchester
Washington	Claude R. Paynter, Salem
Wayne-Union	Harry P. Ross, Richmond
	W. A. Thompson, Liberty

Councilors

First District	I. C. Barclay, Evansville
Second District	H. C. Wadsworth, Washington
Third District	W. H. Garner, New Albany
Fourth District	J. C. Elliott, Guilford
Fifth District	A. M. Mitchell, Terre Haute
Sixth District	Samuel Kennedy, Shelbyville
Eighth District	E. H. Clauser, Muncie
Ninth District	F. T. Romberger, Lafayette
Tenth District	N. K. Forster, Hammond
Eleventh District	Ira E. Perry, North Manchester
Twelfth District	H. L. Murdock, Fort Wayne
Thirteenth District	Alfred Ellison, South Bend

Past Presidents

E. M. Shanklin, Hammond
Charles N. Combs, Terre Haute
C. E. Gillespie, Seymour
George R. Daniels, Marion
F. S. Crockett, Lafayette
J. H. Weinstein, Terre Haute
E. E. Padgett, Indianapolis
R. L. Sensenich, South Bend
E. M. VanBuskirk, Fort Wayne
Karl R. Ruddell, Indianapolis
A. M. Mitchell, Terre Haute
M. A. Austin, Anderson

Officers

C. H. McCaskey, Indianapolis, President
J. T. Oliphant, Farmersburg, President-elect
A. F. Weyerbacher, Indianapolis, Treasurer
Cleon A. Nafe, Indianapolis, Chairman, Executive Committee
Albert Stump, Attorney
Thomas A. Hendricks, Indianapolis, Executive Secretary

Delegates to A.M.A.

D. F. Cameron, Fort Wayne
H. G. Hamer, Indianapolis

THE PRESIDENT: According to Chapter IV, Section 3, of the By-Laws, twenty delegates constitute

a quorum. Doctor Amy, chairman of the Credentials Committee, informs me that there are more than twenty present, therefore the House of Delegates is declared open and ready for the transaction of business.

The By-Laws may be amended at any annual session by a *majority vote of all delegates present* at that session, after the amendment has laid on the table for one day. The House of Delegates may amend any article of the Constitution by a *two-thirds vote of all delegates present* at any annual session, provided that such amendment shall have been presented in open meeting at the previous annual session and that it shall have been published twice during the year in THE JOURNAL of the Association.

Any delegate who wishes to speak must rise and give his name and county to the reporter. And if he intends to speak for any length of time he will come forward to the platform.

We will now rise in tribute to the memory of those who were members of the House of Delegates, or who have served the state association in an official capacity, and who have died since the 1942 annual session. The list follows:

JOHN F. BARNHILL, Miami, Florida, formerly of Indianapolis. Chairman of Eye, Ear, Nose and Throat Section, 1914-1915; member of Committee on Physicians' Welfare, 1914-1915; member of Committee on Arrangements, 1918.

R. A. BOWMAN, Elkhart. Member of Committee to Study Cultists and Irregular Practitioners, 1942.

WALTER F. CARVER, Albion. Secretary of the Noble County Medical Society, 1911, 1912, 1913, 1914, 1917, and from 1926 to the time of his death in 1943; third vice-president of the Association in 1916; member of Committee on State Medicine, 1911-1912; Committee on Legislation and Public Policy, 1930 and 1931; Committee on Secretaries' Conference, 1930; vice-chairman of the Medical Section, 1933; alternate delegate to the American Medical Association, 1933, 1934 and 1935; chairman of Committee on Credentials, 1935 to the time of his death; delegate from Noble County, 1936 through 1942.

B. V. CHANCE, Windfall. Delegate from Tipton County, 1935.

FRANK W. CREGOR, Indianapolis. President of the Indiana State Medical Association, 1927; chairman, Committee on Public Policy and Legislation, 1914-1915, 1922, 1923, 1924, 1925 and 1926; member of Bureau of Publicity, 1924; Executive Committee, 1927; Committee on Budget, 1927 and 1928, and chairman of Committee on Occupational Diseases, 1938 and 1939.

J. R. DILLINGER, French Lick. Member of the Committee on Arrangements, 1926.

J. RILUS EASTMAN, Indianapolis. President of the Indiana State Medical Association, 1918; chairman of the Committee on Scientific Work, 1907-1908, 1911, 1912, and 1924; delegate to the American Medical Association, 1909 to 1917, and 1919 to 1926; chairman of Committee on Medical Defense, 1912 to 1917; chairman of Surgical Section, 1913 and 1914; member of Committee on Scientific Demonstrations, 1914 and 1915; Committee on Administration, 1918, and Military Committee, 1924.

GEORGE J. GEISLER, South Bend. Alternate delegate to the American Medical Association, 1932 and 1933; chairman of Committee on Business Instructional Course, 1933.

G. B. HAMMOND, English. Secretary of the Crawford County Medical Society, 1909 to 1921, 1925 to the time of his death in 1943.

M. E. KLINGLER, Garrett. Secretary of the DeKalb County Medical Society, 1921 through 1924; vice-chairman, Surgical Section, 1928. Delegate from DeKalb County, 1935, 1937 and 1938.

H. C. KNAPP, Huntingburg. Delegate from Dubois County, 1937, 1938 and 1939. Vice-chairman of the Section on Ophthalmology and Otolaryngology, 1926, and chairman of that Section in 1928 and 1929.

A. L. LOOP, Crawfordsville. Secretary of the Montgomery County Medical Society in 1920 and 1921.

E. L. MATTOX, Terre Haute. Chairman of the Committee on Venereal Diseases in 1912 and 1913.

HOWARD B. METTEL, Indianapolis. Secretary of the Indianapolis Medical Society, 1936, 1937 and 1938; member of the Committee on Secretaries' Conference, 1936.

NORMAN C. REGLIEN, Michigan City. Secretary of the LaPorte County Medical Society, 1938.

WILLIAM M. RESER, Lafayette. Secretary of the Tippecanoe County Medical Society, 1908 through 1911, and 1919 through 1923.

CHARLES R. SOWDER, Indianapolis. Member of Committee on Tuberculosis, 1908 to 1912; Committee on Medical Education, 1909 and 1910; and Committee on Industrial and Civic Relations, 1923 and 1924.

H. F. STEELE, Claypool. Secretary of Kosciusko County Medical Society, 1939 to time of his death in 1943. Delegate from Kosciusko County in 1937.

JAMES M. WHITE, Gary. Delegate from Lake County in 1934, 1935 and 1938; councilor of the Tenth District, 1938 through 1942.

A. A. YOUNG, Hammond. Member of Committee on Public Policy and Legislation, 1931.

In addition to the above the following have died in service:

LIEUTENANT JOHN FRANCIS KERR, JR., Indianapolis, Aug. 8, 1942.

LIEUTENANT EMIL NICHOLAS KVETON, M. C., U. S. N. R. Killed in action at sea, Aug. 9, 1942.

(The members of the House stood for one minute in silent tribute to these departed members.)

(On motion of Dr. Samuel Kennedy, duly seconded, the minutes of the previous meetings, as published in THE JOURNAL, were accepted.)

(The president at this time presented Dr. Lee R. Woodward, of Mason City, Iowa, president of the Iowa State Medical Association, who brought greetings from the Iowa association.)

THE PRESIDENT: Article V of the Constitution gives the A. M. A. delegates the right to sit in the House of Delegates, to have the privilege of the floor, but no power to vote. This has been interpreted to include alternates.

Delegates	*Alternates*
Don F. Cameron, Fort Wayne	N. M. Beatty, Indianapolis
F. S. Crockett, Lafayette	A. M. Mitchell, Terre Haute
H. G. Hamer, Indianapolis	J. E. Ferrell, Fortville
George Dillinger, French Lick	A. S. Giordano, South Bend

All members are welcome to sit in on this meeting and hear the deliberations of the House, unless the House goes into executive session, in which case it is closed to all except delegates and the president and secretary of the association.

In accordance with Chapter IX, Section 1, of the By-Laws of the Association, reference committees have been appointed by the president and were published in the September JOURNAL and in the Handbook. These committees are to serve during the session at which they are appointed.

These reference committees should not be confused with the all-year round standing committees. To these committees shall be referred all reports, resolutions and measures presented to the House of Delegates at this session, except such matters as properly come before the Council, and the recommendations of these committees shall be submitted at the next meeting of the House of Delegates for acceptance in the original or modified form, or for rejection. Unless decided differently, the next meeting of the House of Delegates will be held Thursday morning, September 30, (breakfast meeting) in the Chateau Room, Claypool Hotel.

Each committee consists of five members, the first member named to be chairman of the committee.

Because of the importance of the subject matter, the chair is appointing this year a special reference committee on the medical care of service men's wives and children. All resolutions and statements in regard to this subject will be referred to this special reference committee. This committee, if it so desires, may hold its meetings in the Empire Room on the mezzanine floor of the Claypool Hotel, which has been set aside for the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health. All those having questions in regard to the subject of the care of service men's families may contact the committee there.

I will read the names of these reference committees and ask that you stand as your names are called.

1. SECTIONS AND SECTION WORK:

Chairman, M. R. Lohman, Fort Wayne (Allen)
Robert F. Harris, Noblesville (Hamilton)
W. M. Miley, Anderson (Madison)
Rollin H. Moser, Indianapolis (Marion)
Minor Miller, Evansville (Vanderburgh)

2. RULES AND ORDER OF BUSINESS:

Chairman, Marlow Manion, Indianapolis (Marion)
Jesse E. Ferrell, Fortville (Hancock)
J. R. Bloomer, Rockville (Parke)
J. S. Robison, Winchester (Randolph)
Robert R. Acre, Evansville (Vanderburgh)

3. MEDICAL EDUCATION AND HOSPITALS:

Chairman, J. O. Ritchey, Indianapolis (Marion)
Goethe Link, Indianapolis (Marion)
Gordon A. Thomas, Lafayette (Tippecanoe)
E. O. Nay, Terre Haute (Vigo)
C. C. Tucker, Greencastle (Putnam)

4. PUBLIC POLICY AND LEGISLATION:

Chairman, W. H. Howard, Hammond (Lake)
Oran A. Province, Franklin (Johnson)
K. G. Kohlstaedt, Indianapolis (Marion)
F. R. N. Carter, South Bend (St. Joseph)
John K. Spears, Paoli (Orange)

5. PUBLICITY:

Chairman, G. V. Cring, Portland (Jay)
Earl VanReed, Lafayette (Tippecanoe)
C. C. Atkins, Rushville (Rush)
M. F. Daubenheyer, Charlestown (Ripley)
W. H. Lane, Angola (Steuben)

6. HYGIENE AND PUBLIC HEALTH:

Chairman, E. F. Boggs, Indianapolis (Marion)
J. N. Kelly, LaPorte (LaPorte)
A. E. Stinson, Rochester (Fulton)
Ralph J. Harvey, Whitestown (Boone)
J. M. Burk, Decatur (Adams)

7. AMENDMENTS TO CONSTITUTION AND BY-LAWS:

Chairman, B. W. Egan, Logansport (Cass)
J. A. VanKirk, Frankfort (Clinton)
J. T. Morrison, Greensburg (Decatur)
L. Neff Ashworth, Connersville (Fayette)
Paul J. Blessinger, Jasper (Dubois)

8. REPORTS OF OFFICERS:

Chairman, C. S. Black, Warren (Huntington)
W. U. Kennedy, New Castle (Henry)
William N. Wishard, Jr., Indianapolis (Marion)
W. E. Jenkinson, Mount Vernon (Posey)
V. L. Turley, Fowler (Benton)

9. COMMITTEE ON CREDENTIALS:

Chairman, George Daniels, Marion (Grant)
William E. Amy, Corydon (Harrison)
Boaz Yocum, Coal City (Owen)
Paul Garber, South Whitley (Whitley)
N. A. Kremer, Madison (Jefferson)

10. COMMITTEE ON MISCELLANEOUS BUSINESS:

Chairman, S. M. Cotton, Goldsmith (Tipton)
O. G. Brubaker, North Manchester (Wabash)
J. R. Crowder, Sullivan (Sullivan)
L. D. Holliday, Fairmount (Grant)
John Habermel, New Albany (Floyd)

11. SPECIAL COMMITTEE ON MATERNITY AND PEDIATRIC CARE:

Chairman, M. A. Austin, Anderson (Madison)
William C. Wright, Fort Wayne (Allen)
Clay A. Ball, Muncie (Delaware)
P. Q. Row, Hammond (Lake)
Claude B. Paynter, Salem (Washington)

These committees should organize immediately after the adjournment of the House today. Time will be given at the conclusion of this meeting for the chairman of each reference committee to announce on the floor of the House the time and place at which his committee is to meet. Each reference committee chairman, at the conclusion of this meeting, should turn over to the Executive Secretary a memorandum giving the time and place of his committee meeting, in order that this information may be placed on the bulletin board at the registration desk.

The assistant secretary, Miss Kribs, will be available to type reports of the reference committees, and all chairmen should have their reports typed before the second meeting of the House of Delegates.

We now come to Reports of Officers. I have a short report to make to you. Most of these reports, except the address from the chair and that of the President-elect to the House of Delegates, are printend in the September issue of THE JOURNAL and in the Handbook of the House of Delegates, but each officer and committee chairman will be given five minutes to make any addition to or explanation of the reports already published.

ADDRESS OF THE PRESIDENT

DR. C. H. MCCASKEY:

Members of the House of Delegates of the Indiana State Medical Association:

This appearance before you brings to me very forcibly the fact that I shall soon be leaving the presidency of this organization and shall be passing it over to my worthy successor, Dr. J. T. Oliphant.

Service as President

I have served as your president during a year in which many strenuous things have occurred. We have been obliged to give to our armed forces approximately one-third of our fellow practitioners, and we have done so with a great deal of pride, knowing what the responsibility would be for those who were left at home. For a time it looked as if the communities were being stripped of their physicians. Knowing the responsibility that was being placed upon the Procurement and Assignment Service for the proper and equalizing selection of the men throughout the state, I have only words of commendation for Dr. Bird and the members of his committee and the county sub-committees. It is a job well done.

Indianapolis Medical Society

I wish to commend the Indianapolis Medical Society for the plan which it put into operation in order that the public might be satisfied that it was getting proper medical care.

Lack of Medical Care

There are a few communities where complaints have been made that proper medical care was not being received, but where, upon investigation, it was found that the problems were not only small, but ones which were quickly solved. The rapid expansion of the armed forces made it necessary to expand rapidly the Medical Corps, and the consequent draining off of the reserve of doctors made itself more keenly felt than it would have been should the expansion of the armed forces have been slower.

Medical Economics

No one of us can be active in the official body of this organization and not be fully cognizant of the politico-socio-economic change which is taking place in medicine throughout this country. This change has not occurred over-night; it has been an insidious one which has been slowly encircling us with tentacles which are more destructive to medicine, as we have known it, than any change which has been made in the past. It will continue so until every physician in these United States is willing to give of himself to his medical organization until it hurts. Of course, we must share our part in the social and economic life of our county, of our state, and of our country, but I am sure we do not want a political direction of our activities.

House of Delegates of A.M.A.

The House of Delegates of the American Medical Association has set up a new plan of Public Relations in the form of a council selected by its Board of Trustees to keep medicine in closer touch with the activities in our National Capital, especially those things in Congress which have to do with medicine. This council, when it begins to function, should be able to create a closer relationship with Congress. Every member of the medical profession should consider himself a member of this council, for it is with our Congressmen and Senators at home that the foot-work has to be done, and that is where each and every one of us can do a good job. *Just remember that in our fewness there is strength.*

State Committees

Both the constitutional and appointed committees of the association have done extraordinarily fine jobs, and they are to be commended. The Council has functioned exceedingly well, as has the Executive Committee which meets monthly, and no one knows, unless he has been a member of this committee, what an arduous six to eight hours are spent at these meetings. Almost every question in medical organization is discussed at some time during these meetings. Thus one might say, "This is a committee where a great deal of diplomacy is required and fair opinions are rendered."

District Meetings

The district meetings which I have had the privilege of attending have been well attended, the programs have been well prepared, and the discussions well presented. This is very encouraging in view of the fact that so many of our members

are serving in the Medical Corps of the Army or Navy, yet the remaining members find time for attendance and participation in those meetings, which indicates a healthy condition of our medical organization.

Headquarters Office

The personnel at the headquarters' office have always been at my beck and call and have willingly and gladly helped with any task which they have been called upon to do.

"Medsoc"

"Medsoc" was created during this year as a news service to members in the armed forces and it has proved a great success.

Industrial Health Committee

I must mention to this House of Delegates that one of the outstanding contributions made by the association during the year was the creation and carrying out of our Industrial Health Educational program. This program was carried out by Dr. E. T. Jones and the Committee on Industrial Health, and by Dr. Louis Spolyar of the Industrial Bureau of the Board of Health.

Lake County Full-Time Secretary

Lake County has proved that an all-time secretary, in a county whose membership is large enough to support such a person, is a very satisfactory method of handling the affairs of the society, and I would urge other societies who have the membership to support an all-time secretary to do so.

Rehabilitation of the Medical Corps of the Armed Forces

The thing I have been vitally interested in during the last year is the rehabilitation of the men who are in the service. After giving this problem serious consideration, and after discussing it with various members of the official group of the state organization and with several physicians who are in the Medical Corps, I have thought of no better arrangement than to allow the committee which had to do with their entrance into service to be the committee which will have to do with their rehabilitation; that is, the Procurement and Assignment Service, and in your deliberations upon this subject I hope that you will make plans to have this carried out.

Maternal and Pediatric Care for Wives and Children of Enlisted Men

One of the questions the House of Delegates will have before it for discussion is that of maternity and pediatric care for wives and children of enlisted men. At the last meeting of the House of Delegates it was voted not to accept this as a responsibility of the Indiana State Medical Association. Then came the time when more moneys were made available to carry this out, and a clamor from the public and the enlisted men began. The question was again referred to the Advisory Committee to the Maternal and Child-Health Committee of the Indiana State Board of Health, of which Dr. H. F. Nolting is chairman, and plans were made with the State Board of Health through this committee to carry out a plan which was eventually agreed upon.

With reference to this question, the following is quoted from the minutes of the Executive Committee of August 22, 1943: "The Committee again reaffirmed its stand upon this subject, which has been printed in the minutes of former meetings and also in the annual report, namely, that the committee cannot object to the purpose of this legislation but that it does object to the use of federal funds for the payment of medical services for anyone, whether soldier or civilian, who is able to pay for such medical services."

The following is the statement taken from the Annual Report of the Executive Committee to the Indiana State Medical Association: "The Executive Committee of the Indiana State Medical Association is sure that action taken by Congress and the State Board of Health with regard to maternity and pediatric care of *needy* wives and children of enlisted men will meet with the hearty cooperation of the medical profession of the State of Indiana."

The House of Representatives in September, 1943, passed House Joint Resolution 159, appropriating $18,620,000 for obstetric services for wives of service men in the fourth, fifth, sixth and seventh grades. No change in the method of payment was objectionable providing the existing law remains in effect. A resolution was sent to the Senate Finance Committee and was reported on favorably from this committee.

I trust that what I have said may aid you in your deliberations and may help in your efforts to solve these many problems.

I wish to thank our Executive Secretary, Mr. Thomas A. Hendricks, for his untiring efforts in behalf of this association, and especially to thank him for the many nice things he has done for me during my presidency.

I have had the unaltered support of the Executive Committee and of its chairman, Dr. C. A. Nafe. The Council has done everything possible to make this year's work agreeable and pleasant, and I must say that their chairman has been especially kind to me.

This will be referred to the Reference Committee on Reports of Officers.

ADDRESS OF THE PRESIDENT-ELECT

DR. J. T OLIPHANT:

Mr. Chairman, Members of the House of Delegates:

It has been a very fine experience to have been a member of the official family of the Indiana State

Medical Association for the past year. It has been pleasant to associate with Doctor McCaskey and Mr. Hendricks, and with the splendid gentlemen who make up the Executive Committee, the Council, and the various committees that have met with us from time to time to take care of the business of the state association. But pleasant as has been this past year, I can only look forward to the coming year with fear and dread. My own inaptitude, the turmoil of war, the cloud of socialized medicine hovering over us—these are the things that fill me with profound dread. My only hope is that no cloud on the inside is as dark as it seems when it approaches. But nothing, it seems to me, so dark as this cloud looks, can happen to the doctors of America. I still have faith that the brains of the medical profession will be able to so modify any laws that may be made or attempted to be made regarding the distribution of medical service that they may be acceptable to the doctors of the country.

In the coming year there are two things that I wish to urge upon the members of this association: The first is that I hope every county will keep up its regular monthly meetings. Even though there are only three or four men left in the county, I hope that they will find time to attend these meetings and keep themselves informed on all the moves that are made by the state association, or the American Medical Association, to prevent the absolute eclipse of our medical freedom. The second is that I have been impressed from time to time by the members of committees who have been appointed, and some of the state officers that have been unable to attend. I want to urge each one of you, should you be appointed on a committee that will meet in Indianapolis, or any other place away from your home, that if you should be summoned to come up here at any time and assist with your counsel and advice—I want to urge that you let nothing prevent your being with us.

THE PRESIDENT: This will be referred to the Reference Committee on Reports of Officers.

REPORT OF EXECUTIVE SECRETARY

Referred to the Reference Committee on Reports of Officers.

REPORT OF TREASURER

Referred to Reference Committee on Reports of Officers.

REPORT OF CHAIRMAN OF COUNCIL

Referred to Reference Committee on Reports of Officers.

REPORTS OF STANDING AND SPECIAL COMMITTEES

COMMITTEE ON CREDENTIALS

Referred to Reference Committee on Credentials.

EXECUTIVE COMMITTEE

DR. CLEON A. NAFE, chairman: As you know, the committee has met diligently, and we have enjoyed the presence of all members of the committee, except during the last few months when Doctor Asher has been ill. He is in bed. I have called upon him, and he tells me that it will be some time before he will be out. He looks to be in good health and seems to be enjoying his rest—reading good books and becoming well-informed. I think from all indications he will regain his health, but he will be in bed for some time, I am told. If any of you wish to drop by, he is now receiving company. The Executive Committee misses him very much—sorry he can not be with us.

I think you are pretty well informed concerning the actions of the Executive Committee through the year, and the only thing I will discuss at this time, with your consent, is the supplementary report that we wish to present to the House of Delegates concerning the question of group malpractice insurance, and this is the report. I will read it.

The Executive Committee has considered the advisability of recommending Group Malpractice Insurance to the members of the State Association. This proposal was presented to the council at its winter meeting, and they approved the consideration of such a plan.

The Executive Committee has considered this problem for the following reasons:

1. The cost of malpractice insurance has increased considerably in the last several years, especially in the more densely populated areas. We have been told that this is because of increased number of malpractice suits and the resulting losses, including the high cost of medical defense. The Executive Committee doubts that this is true from what records we have available at the association headquarters. Whether it is, or not, a concentrated effort should be made to discourage such suits since practically none of them have any merit.
2. We have received complaints that one company which carries a large number of these risks has consistently advised doctors to take only $5,000 and $10,000 coverage, advising them that such coverage is sufficient. The Executive Committee does not believe that this is true if a loss in court is really sustained.
3. Approximately sixteen state associations and many individual county associations have group policies in force. The state associations with whom we have talked have materially reduced the cost of insurance to the doctor and lessened the number of these suits and the losses sustained by this plan. This has been accomplished by close cooperation between the insuring company and the physicians of that individual state through their central and subcommittees concerned with this problem.
4. Our conference with insurance officials convinces us that a material reduction can be ac-

complished if the majority of the doctors are insured in one company and if the state association through such committees will aid in discouraging and defending these suits. It has been the experience elsewhere that by this method the rate of insurance can be systematically reduced. This is particularly true in Connecticut, where the state association has pioneered this movement.

The suggested plan is as follows:

From the companies that are interested, a responsible company would be selected on the basis of the best rates offered, the standing of the company and other desirable features.

The standard contract suggested is a $10,000 and $30,000 coverage.

Each physician could buy this insurance from the regular agent in his community or from any licensed insurance broker. Each physician might select a larger or smaller coverage with corresponding adjustment of the premium.

The standard premium would be the same for all doctors in the state doing the same type of practice, there being a standard rate for men in general medicine and a higher rate for surgeons and those using x-ray and radium.

It would be advantageous to adopt such a plan only if the physicians of this state thoroughly approve of it and only if at least a majority become a part of it.

The Executive Committee has studied the problem and look upon it favorably. We are submitting it to the House of Delegates for your consideration.

THE PRESIDENT: This report, as well as the report printed in the Handbook, will be referred to Reference Committee on Reports of Officers, with the exception of the paragraph on maternity and pediatric care of wives and children of enlisted men in the armed forces, which is referred to the Special Reference Committee on Maternity and Pediatric Care.

COMMITTEE ON ARRANGEMENTS

Verbal statement referred to Reference Committee on Miscellaneous Business.

COMMITTEE ON SCIENTIFIC WORK

Referred to Reference Committee on Sections and Section Work.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

DR. NORMAN BEATTY, co-chairman, made a supplemental report advocating the appointment of a Public Relations man for the association.

Dues for 1944 are
now payable

Referred to the Reference Committee on Public Policy and Legislation.

BUREAU OF PUBLICITY

DR. H. G. HAMER, chairman: In addition to the report on page 56 of the Handbook, I wish to make some statements concerning the radio series, "Medicine at War," that has been put on by the state medical association during the last weeks. We are particularly indebted for the success of this program, to the chairman of our radio publicity, Doctor Jewett, and also to a very able script writer, Mrs. Lotys B. Stewart. Those who have heard some of these broadcasts agree with us that they were very fine.

In summary, it would perhaps be of some interest to say that not every program has been broadcast from Indianapolis; eleven were broadcast from Indianapolis and there were three programs each on seven stations out in the state. Participants in the Indianapolis broadcasts were Doctor Hilleboe, of the United States Public Health Service; officers of the State Medical Association; Procurement and Assignment Service officers, and prominent physicians in the Army and Navy. In the local communities local physicians participated. Some very interesting ones are yet to come. We have heard very favorable comment. In one instance we were told that our genial president was the Orson Welles of the medical profession, and Dr. Jane Ketcham is being called the Katharine Cornell of the association. I thought that it would be of interest to have this additional report.

(Referred to the Reference Committee on Publicity.)

COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

Referred to Reference Committee on Public Policy and Legislation.

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

Referred to Reference Committee on Medical Education and Hospitals.

JOURNAL PUBLICATION COMMITTEE

Referred to Reference Committee on Reports of Officers.

MR. HENDRICKS: I am sure that you will be pleased to know that Doctor Shanklin has been appointed a member of the Advisory Committee to the Cooperative Medical Advertising Bureau of the American Medical Association.

SECRETARIES' CONFERENCE

Referred to Reference Committee on Miscellaneous Business.

PERMANENT STUDY COMMITTEE ON HEALTH INSURANCE

Referred to the Reference Committee on Public Policy and Legislation.

NECROLOGY

Referred to Reference Committee on Miscellaneous Business.

HISTORIAN

Referred to Reference Committee on Publicity.

STUDY OF HIGH SCHOOL ATHLETICS

Referred to Reference Committee on Hygiene and Public Health.

MENTAL HEALTH

Referred to Reference Committee on Hygiene and Public Health.

STATE FAIR

Referred to Reference Committee on Publicity.

PREVENTION OF TRAFFIC ACCIDENTS

Referred to Reference Committee on Hygiene and Public Health.

ADVISORY COMMITTEE TO THE BUREAU OF MATERNAL AND CHILD-HEALTH OF THE INDIANA STATE BOARD OF HEALTH

DR. H. F. NOLTING, the chairman, gave the following supplementary report:

House of Delegates of the Indiana State Medical Association:

The Advisory Committee on Maternal and Child-Health has held several meetings throughout the year. The chief problem under discussion concerned the Emergency Maternal and Infant Care program for wives and children under one year of age, of service men of non-commissioned rank.

This program was sponsored by the Children's Bureau in Washington, urged by the American Legion and was made statutory by unanimous congressional action, New Dealers, Republicans and Democrats alike.

Your committee has made several earlier reports which most of you no doubt have read in the July and September issues of THE JOURNAL of the Indiana State Medical Association. In these reports we set forth in considerable detail the operating arrangements in regard to this program.

In this supplementary report we wish to call to your attention that your committee did not promote or promulgate this medical service plan. As has already been stated, it was handed to us by the Federal Government. The function of the Committee, according to standing instructions under the constitution, is to act in an advisory capacity to the Bureau of Maternal and Child-Health, or cooperative agencies, in their efforts to promote better child-health and reduce maternal mortality. We have endeavored to fulfill this obligation to the best of our ability.

Your Committee wishes to convey to the House of Delegates that Thurman B. Rice, Commissioner of Health, and Robert E. Jewett,. director of the Division of Maternal and Child-Health, feeling that the service in question was not really a public health responsibility, have undertaken this onerous function reluctantly. They have accepted the administration of the program only after great public pressure had been brought to bear, and after conferring with the Executive Committee of the State Medical Association. Finding no alternative, they have attempted to deliver their responsibility in spite of limitations beyond their control.

They have carried on in spite of misunderstanding of the Congressional Act and its attendant regulations on the part of the public and the profession—misunderstanding which has led to much unwarranted and painful criticism. They have never ceased to struggle against inconsiderate limitations, and they have, thereby, gained some concessions.

This Committee, acting in an advisory capacity, has witnessed these trials; and it feels that everything that can be done is being done to preserve the ideals of the profession while providing for the public's demand.

Your Committee feels that Thurman B. Rice and Robert E. Jewett have done well, and we ask that members of the Indiana State Medical Association make a fair and honest appraisal of their administrative work.

The Emergency Care setup provides for consultants and assistants along with its other working arrangements.

At one of your Committee's recent meetings it was unanimously decided that each county society should retain the privilege of choosing its own consultants. Your Committee and Director Robert Jewett, chief of the Indiana Bureau of Maternal and Child-Health, were of the firm conviction that the members or councils of the local societies would be best fitted to pass on the qualifications of consultants in their respective fields, but suffice it to say, the Committee is desirous that such consultants be chosen in accordance with the same high standard as is ordinarily exercised in the private practice of medicine.

An assistant is a doctor who is helping another doctor perform a service which he alone cannot do, such as wielding a retractor or administering an anesthetic.

We wish to repeat and make it clear that there is no centralized control being attempted, nor do we desire to impose any regulations. Your choice of consultants will be free and untrammeled without any dictation from on high.

The Committee has encountered criticism from sources of various sorts. In most instances such criticism could be met by providing a fuller under-

standing. It would be too time-consuming to mention all such adverse comments in detail.

I will mention the principal objection, which is, as you may have guessed, that this is an entering wedge to state or socialized medicine. Not one of you, nor your Committee, is mentally or optically blind to such a danger.

We are aware of the fact that the medical profession in this country has been forced to a temporary adoption of a child which may stay with us permanently. However, we hope that the child will be of age six months after the "duration" so that it will need no further care by its foster parents or guardians. Whether we like it or not, it seems that a baby has been left on our doorstep. In the baby's basket there is an attached note from its Uncle Samuel which states: "You are obliged to take care of this infant until six months after the duration." Usually when Uncle Sam speaks it is a mandate.

It is the opinion of your committee that, under the circumstances and stress of this present great emergency of war, the medical profession is in an unenviable position to challenge this mandate. To the general public, service men and their wives, not to mention the Red Cross, USO and other organizations, or individually, the refusal to cooperate with this program might make us as superlatively unpopular as some of our hated labor racketeers in the defense industries.

Volumes of discussion and explanation, no matter how good our premise, would not convince the boys in the Mediterranean sector or those who are fighting in the jungles of New Guinea, nor could we explain it away after the boys come marching home.

The Advisory Committee strongly voices its disapproval of recent federal legislation, an amendment which would allow osteopaths, midwives and others to benefit under this program. The attorney general of the United States, however, gave an opinion in which he stated that the properly constituted authorities of the several states would determine the eligibility of those who may take part as practitioners under the emergency care plan.

Therefore, the committee recommends that the Indiana State Medical Association, through its House of Delegates, approve our suggestion that Dr. Thurman Rice and Dr. Robert Jewett be given a free hand to deal, as effectively as possible, with this new problem so that our high medical standards do not suffer.

Your committee would guard against the profession assuming a defeatist attitude or sinking into a state of complacency. We must not relax our vigilance against the destructive forces from without. When this conflagration is over, there should be put forth, by organized medicine, an earnest, forceful and constructive effort to formulate a concerted opinion, so that we may present unity of action against the present dangerous premise and in its stead establish a plan based on sound principles of medical service.

We wish to thank those members of the Indiana State Medical Association who have shown a sincere interest in the work of your committee, those who contributed their good advice and also those who offered tempered constructive criticism—each influenced our deliberations.

Personally, as chairman, I am grateful to all members of the committee for their loyal cooperation. Their combined thoughts and opinions are the essence of this report.

Your committee presents this report for your consideration.

Referred to the Special Reference Committee on Maternity and Pediatric Care.

DIRECTOR OF RESEARCH ON SICKNESS INSURANCE

Referred to Reference Committee on Public Policy and Legislation.

LIAISON COMMITTEE OF THE DIVISION OF SERVICES FOR CRIPPLED CHILDREN

Referred to Reference Committee on Public Policy and Legislation.

AUDITING

Referred to Council.

CONTROL OF CANCER

Referred to Reference Committee on Hygiene and Public Health.

VENEREAL DISEASE

Referred to Reference Committee on Hygiene and Public Health.

INDUSTRIAL HEALTH

Referred to Reference Committee on Hygiene and Public Health.

COMMITTEE TO STUDY CULTISTS AND IRREGULAR PRACTITIONERS

Referred to Reference Committee on Public Policy and Legislation.

COMMITTEE ON INDIANA INTER-PROFESSIONAL HEALTH COUNCIL

Referred to Reference Committee on Miscellaneous Business.

ANTI-TUBERCULOSIS COMMITTEE

Referred to Reference Committee on Hygiene and Public Health

CONSERVATION OF VISION

Referred to Reference Committee on Hygiene and Public Health.

HARD OF HEARING

Referred to Reference Committee on Hygiene and Public Health.

WAR PARTICIPATION

Referred to Reference Committee on Miscellaneous Business.

PHYSICAL THERAPY

Referred to Reference Committee on Miscellaneous Business.

MEDICAL RELIEF

Referred to Reference Committee on Public Policy and Legislation.

CIVILIAN DEFENSE

Referred to Reference Committee on Hygiene and Public Health.

OPA MEDICAL ADVISORY COMMITTEE

Referred to Reference Committee on Hygiene and Public Health.

REPORT OF DELEGATES TO A.M.A.

THE PRESIDENT: Is there any further report at this time on the Chicago session?

There being no further report, this was referred to the Reference Committee on Reports of Officers.

NEW BUSINESS

DR. H. W. EGGERS: This is a resolution adopted by the Lake County Society September 8, 1943:

"WHEREAS we, whose medical practice places us in intimate daily contact with the rank and file of Americans, know that the public has reacted against the policies and actions of the American Medical Association and its representatives, and that the public is reacting favorably toward the Wagner-Murray Senate Bill 1161; and

"WHEREAS the high standards of practice and the unparalleled achievements in public health that have resulted from the American system of private medical practice are threatened with destruction because much of the American public and many of its congressional representatives misunderstand and are therefore prejudiced against organized medicine; and

"WHEREAS we are, to medical history, the temporary custodians of the practice of medicine and have, therefore, a grave responsibility to our members in the armed forces, to the public, to our predecessors and teachers, and to the future generations of physicians and their patients—an inescapable responsibility not only to preserve, but to improve both the quality and methods of distribution of medical care; and

"WHEREAS organized medicine is entirely without voice or representation at the national legislature, presumably because the American Medical Association seeks to preserve a tax-exempt status by refusing to engage openly in legislative work at a time when the future of American Medicine is at stake; and

"WHEREAS we are not now organized to meet our responsibilities because, for example, such dangerous legislation as that portion of the First Deficiency Appropriation Act of March 18, 1943, which established the program for the obstetrical and pediatric care of families of men in the armed forces, has only recently slipped through the Congress without the constituent state associations and county medical societies even being advised of the bill or its implications, without well-intentioned legislators who voted for it being informed regarding the bill's medically vicious features; and

"WHEREAS we are not now organized to protect the public or the profession, because actions taken and public health recommendations made by the House of Delegates of the American Medical Association remain only words on the record and are not translated into action or successfully enforced in the public interest upon the elected servants of the public; and

"WHEREAS damaging and oppressive legislation is seldom, if ever, imposed upon an American industry, business or profession that has earned good Public Relations, seldom imposed upon any well-organized group that not only serves the best public interests, but is understood, respected and admired by the public because of its *known* unselfish public service; and

"WHEREAS the actions and policies of the American Medical Association have been interpreted to the public in a manner that has given a dangerously large part of the public the erroneous impression that American Medicine is less interested in how it can serve the public than how it can serve itself; that American Medicine is reactionary and not in step with social and economic progress; that American Medicine is identified with capital as against labor, with conservatives as against liberals, with Republicans as against Democrats, whereas the only identification the organized American physician wants, and the only identification he should have, is with the best public health and the best treatment of his individual patients; and

"WHEREAS the American Medical Association has created the public impression that it opposes the reasonable public desire for an application of the insurance principle to the costs of medical and surgical care, whereas, both in the public interest and as a preventive measure against state medicine, it should itself have established, or at least cooperated actively in the establishment of the kind of voluntary health insurance plans that do not interfere with the delivery of the best medical and surgical service; and

"WHEREAS the American Medical Association has not represented to the public the true and unselfish character of the organized American physician, and has not delivered to the organized profession the good Public Relations it so richly deserves; and

"WHEREAS the application to the American Medical Association of the philosophy and methods of sound public relations would not only have obviated the legislative problems of the moment, but would have given to the organized profession the security guaranteed by a deserved position of public understanding and confidence; therefore be it

"RESOLVED, That the American Medical Association immediately submit itself to the treatment and unhampered guidance of the best-qualified Public Relations counsel available; and be it further

"RESOLVED, That an office of the American Medical Association immediately be opened in Washington, with a staff headed by a capable full-time representative who will advise with members of

the Congress regarding the health implications of bills presented to them, and who will maintain close contact with state associations and county medical societies so that they may join in an effective legislative activity for the organized profession; and be it further

"Resolved, That the American Medical Association headquarters' office be reorganized and its staff expanded so that it will not only make studies and recommendations, but, in the public interest, will succeed in the actual accomplishment of the things American physicians want, and for which they have organized themselves and established a headquarters office."

Referred to Reference Committee on Public Policy and Legislation.

Dr. Earl VanReed: This resolution was passed at the last meeting of the Tippecanoe County Medical Society. I do not see the necessity of burdening the record with it because it is the same as other resolutions, covers the same ground, but I will read it.

"Whereas the Wagner-Murray-Dingell Bill for Social Security now pending before the Congress of the United States (S. 1161; H. R. 2861) proposes in deed and in fact to establish a federally-controlled system of medical practice under the virtual dictatorship of the Surgeon General of the United States Public Health Service; and

"Whereas the Tippecanoe County Medical Society, a component member of the Indiana State Medical Association, believes that if the provisions of this bill, as now written, were carried out in full, the ultimate result would be a marked deterioration in the quality of medical services rendered to the sick, and hence the bill is not in the better interest of the public weal; therefore,

"Be it Resolved, That the Tippecanoe County Medical Society is unalterably opposed to the passage of this bill, as now written and proposed; and

"Be it Further Resolved, That said society is equally opposed to any legislative bill of whatsoever character which does not embody in its provisions complete and satisfactory safeguards toward the end that medical practice in all its ramifications and the traditional patient-physician relationship in all its phases shall be controlled by and governed by the individual, organized, local county medical societies which are affiliated with the respective organized state associations of the several sovereign States of The United States; and

"Be it Further Resolved, That the Tippecanoe County Society prays that the House of Delegates of the Indiana State Medical Association shall and will exercise its full and every power to carry out both the letter and the spirit of these resolutions, and the Tippecanoe Society further prays that the said House of Delegates shall and will mandate its Council and its Executive Committee to spare neither time, trouble, nor expense to defeat this and all similar bills, to the extreme limit of the Indiana State Medical Association's power and resources."

Referred to Reference Committee on Public Policy and Legislation.

Dr. W. H. Howard, Hammond: I would like to present this resolution:

"Whereas the Emergency Maternity and Infant Care Program for the Families of Men in the Armed Forces, as operated in Indiana, is inimical to the best interests of the patients it pretends to benefit because it includes many of the most vicious features of state medicine; and

"Whereas the House of Delegates of the Indiana State Medical Association has already gone on record as opposing such a plan; therefore be it

"Resolved that the action of the 1943 House of Delegates of the American Medical Association be adopted, namely, '(a) that the action of the Federal Government in making funds available for maternity and infant care for the wives and infants of enlisted men be approved, and (b) that adoption be urged of a plan under which the Federal Government will provide for the wives of enlisted men a stated allotment for medical, hospital, maternity and infant care, similar to the allotments already provided for the maintenance of dependents, leaving the actual arrangements with respect to fees to be fixed by mutual agreement between the wife and the physician of her choice'; and be it further

"Resolved that, until such plan is adopted by the Federal Government, the Indiana State Medical Association reject the present plan in its entirety, and that medical, maternity, and infant care for the families of enlisted men be provided by the members of the Indiana State Medical Association in the same manner in which medicine has traditionally provided for the needs of individuals and entire populations who were without the means of compensating the physician for his services."

Referred to Special Reference Committee on Maternity and Pediatric Care.

Dr. G. A. Thomas, Lafayette: This is a resolution of the Tippecanoe County Medical Society:

"Whereas the Department of Health of the State of Indiana is cooperating with a federally-sponsored and controlled program of obstetric and infant care for the wives and infants of enlisted men in the armed services whereby payment for this care is made directly to the physician rather than as an allotment to the wife, so that she may employ the physician of her own choice in the traditional patient-physician relationship, in all its phases; and

"Whereas the Tippecanoe County Medical Society agrees most heartily with the broad objectives of the program; but

"Whereas this society believes that the plan as now effective in its administrative details is not in the better interests of the public weal; because to a large degree it hampers and restricts the freedom of choice of physician and interferes with the traditional patient-physician relationship; and,

because it ultimately will develop a poor quality of obstetric-pediatric care, a condition which usually follows governmentally regimented programs; and, because our society thus would commit to this type of medical practice those members of our society who now are in the military service without giving them an opportunity to express their opinion thereon; and, because this program would establish a precedent for still further governmental intrusion into medical services to all, without economic distinction and/or the determination of the need; and, because the program sets up fee schedules which are inelastic with regard to the type of medical services rendered and takes into consideration no data on local costs, conditions, and relationships; therefore,

"Be it Resolved, That the Tippecanoe County Medical Society, a component society of the Indiana State Medical Association, never having failed to meet in full its obligation for the professional care of the wives and infants of enlisted men, nevertheless is unalterably opposed to and disapproves of the present federally-sponsored plan of Maternal and Pediatric care insofar as it now is being administered, and the Tippecanoe Society prays that the House of Delegates of the Indiana State Medical Association, itself, or through its Council and its Executive Committee, shall and will exercise every power at its command to secure such modifications of the present plan, so that the full control of maternal and pediatric care in all its phases, including the traditional patient-physician relationship, shall be returned to and continue to abide with the respective individually organized county medical societies of the State of Indiana, affiliated with the organized Indiana State Medical Association."

Referred to the Special Reference Committee on Maternity and Pediatric Care.

Dr. W. D. Inlow, Shelbyville: I would like to present this resolution on behalf of the Shelby County Medical Society:

"Whereas there has been introduced in the United States Senate, in the form of Senate Bill No. 1161, a most drastic piece of legislation outlining a plan to regiment the present and future physicians and surgeons of our country, and control the practice of medicine by a bureaucracy rather than by existing state laws, which would undoubtedly result in an unholy political domination and control of the health and lives of our citizenry; and

"Whereas the Shelby County Medical Society has communicated by letter with more than one-third of its total membership now serving with the armed forces of the United States, asking each of these members to express himself concerning his personal desires in regard to the approval or disapproval of said Senate Bill 1161; and

"Whereas without a single exception all replies received expressed disapproval of Senate Bill 1161 in varying degrees; and

"Whereas we, the active members of the Shelby County Medical Society, in addition to our unalterable disapproval of the provisions of this proposed legislation, feel that it would be our duty to protect the interests of our colleagues who have made great sacrifice to serve our country, and by virtue of such service are unable to combat the political forces favoring this legislation; and

"Whereas we believe the forces supporting this legislation can be successfully combated if each county medical society in the United States will develop an interest in this matter equal to our own;

"Now Therefore Be It Resolved, That the Shelby County Medical Society:

1. Stands unconditionally and unalterably opposed to the proposed legislation concerning the practice of medicine as outlined in Senate Bill No. 1161; and

2. That it will expend its greatest effort and influence to secure the defeat of such legislation; and

"Be It Further Resolved, That a copy of these resolutions be submitted to the Indiana State Medical Association at its 1943 annual meeting, memorializing said state association:

1. To pass a similar resolution.

2. To appoint a committee, each member of which is pledged to expend unremitting effort toward securing the defeat of this proposed legislation; and

3. To ask each county medical society within the State of Indiana to correspond with its members serving with the armed forces regarding their views on these matters and to set aside an early meeting for a free discussion of this proposed legislation with a speaker, furnished by the Speakers' Bureau of the Indiana State Medical Association, well versed in the interpretation of the provisions of Senate Bill No. 1161; and

4. To set aside sufficient funds, earmarked for the accomplishment of this effort; and

5. To petition all other state medical organizations to make a similar effort."

Referred to the Reference Committee on Public Policy and Legislation.

Dr. Eugene F. Boggs, Indianapolis: I have a short resolution.

"Be It Resolved, That the Indiana State Medical Association go on record against any plan of medical care where the patient does not have free choice of physician."

Referred to the Reference Committee on Public Policy and Legislation.

Dr. George J. Garceau, Indianapolis: I would like to present this resolution:

"Be It Resolved, That the Indiana State Medical Association go on record as urging that the legislature make it mandatory that an applicant to practice medicine in the State of Indiana shall be a full citizen of the United States."

Referred to the Reference Committee on Miscellaneous Business.

Dr. Claude B. Paynter, Washington County: I have this resolution to offer:

The Washington County Medical Society, believing that certain committees of our State Association are assuming the power to ignore or even reverse policies established and adopted by the House of Delegates of our State Association, has instructed its delegates to present the following resolution:

"Whereas to the House of Delegates *alone* is granted the duty and power to determine and establish the major policies of the Indiana State Medical Association, and

"Whereas at the 1942 session of the House of Delegates, when asked for its attitude toward the proposition that the State Board of Health take over and supervise obstetrics and pediatric care for families of enlisted men, adopted a resolution emphatically condemning this extension of State Board of Health activities, and suggested that such medical care be rendered locally by counties in the same manner as other needed medical care is furnished, and incidentally has since been recommended by the House of Delegates of the American Medical Association, and

"Whereas during the past year certain committees of the Indiana State Medical Association, contravening this established policy, have actually assisted the State Board of Health in extending its activities into the field of obstetrics and pediatrics and other specialities,

"Therefore Be It Resolved, by the House of Delegates that it hereby repudiates all such activities which have been carried on in contravention of its expressed policies; and be it further

"Resolved, That, if in the future, because of federal legislation or other unforeseen events, some major modification of established policy seems advisable, that no committee or officer of the Association may presume to act without first obtaining permission through a suitable referendum to all constituted county societies."

Referred to the Special Reference Committee on Maternity and Pediatric Care.

Dr. J. R. Frank, Valparaiso: I have this resolution to offer:

"Be It Resolved, That Dr. Arthur Joseph Cramp, a member of our Association now in retirement, be made an honorary member of the Indiana State Medical Association."

Dr. Arthur Joseph Cramp was born in London, England, in 1872 and was educated in that city, and in 1906 received his M.D. degree from the Wisconsin College of Physicians and Surgeons, Milwaukee, which was succeeded by Marquette University School of Medicine. In December, 1906, he joined the editorial staff of *The Journal of the American Medical Association*, and soon afterward established the Propaganda Department, which later became known as the Bureau of Investigation. He was director of this bureau for twenty-nine years, until his retirement December 1, 1935, because of ill health. While a resident of Chicago, he was a member of the Society of Medical History, the Institute of Medicine of Chicago, the Royal Institute of Public Health, the Ornithological Society, Phi Rho Sigma, and the Chicago Literary Club. He is the author of "Nostrums and Quackery" (three volumes) and of many pamphlets and magazine articles dealing with "patent medicines" and allied subjects. Since his retirement Dr. Cramp has lived in Florida and North Carolina.

Referred to the Reference Committee on Miscellaneous Business.

The President: We have with us today a man who has been president of this association, and who at present is president of the Board of Trustees of the American Medical Association, Dr. R. L. Sensenich. We will be glad to hear from him.

Dr. R. L. Sensenich: This is a great surprise. I did not know I would be called upon. I just want to tell you how glad I am to be here. Unfortunately, over a period of years there has been a conflict each year, in that we had a meeting of the Board of Trustees at the same time as the meeting of the Indiana State Medical Association, and I could only spend a day at this meeting. However, this time I will be able to stay through. I feel as if I had come home. You have always been so kind to me, and I appreciate it. I have very pleasant memories of my membership on the Executive Committee, and that experience has been very helpful. I want to say while I have this opportunity that there have been improvements in the nation's medical care stimulated by the American Medical Association; plans are now being advanced and are very generally accepted, like the industrial physicians' work, in which Tom was a big factor. Other officials of the association have cooperated, and in consequence we have gotten Indiana in the foreground. There are some things in legislation nowadays which we wish could have had the clear thinking and recognition of existing conditions that you apply here. I want to see the Indiana State Medical Association continue on the clearly defined path of progress, as it has in years past.

No further business appearing, the House of Delegates, on a duly seconded motion, adjourned until Thursday morning at seven o'clock.

HOUSE OF DELEGATES

(INDIANAPOLIS SESSION, 1943)

Second Meeting

The second meeting of the House of Delegates, a breakfast meeting, was held September 30, 1943, in the Chateau Room of the Claypool Hotel, Indianapolis, convening at seven o'clock; the President, Dr. C. H. McCaskey, presiding.

The chairman of the Credentials Committee announced that there were ninety-three members present.

Attendance slips showed the following members present:

County	*Delegates*
Allen	M. B.Catlett, Fort Wayne
	M. R. Lohman, Fort Wayne
	W. C. Wright, Fort Wayne
Bartholomew	J. E. Dudding, Hope
Benton	V. L. Turley, Fowler
Boone	Ralph J. Harvey, Whitestown
Cass	B. W. Egan, Logansport
Clay	J. F. Maurer, Brazil
Dearborn-Ohio	G. S. Fessler, Rising Sun
DeKalb	W. W. Swarts, Auburn
Delaware-Blackford	Clay Ball, Muncie
	L. G. Montgomery, Muncie
Dubois	Paul J. Blessinger, Jasper
Elkhart	A. C. Yoder, Goshen
Floyd	C. E. Briscoe, New Albany
Fulton	A. E. Stinson, Rochester
Hamilton	Robert F. Harris, Noblesville
Harrison	William E. Amy, Corydon
Hendricks	J. C. Stafford, Plainfield
Henry	W. U. Kennedy, New Castle
Huntington	C. S. Black, Warren
Jay	Geo. V. Cring, Portland
Jefferson	Nicholas A. Kremer, Madison
Lake	J. Robert Doty, Gary
	H. W. Eggers, Hammond
	W. H. Howard, Hammond
	E. S. Jones, Hammond
	P. Q. Row, Hammond
LaPorte	J. N. Kelly, LaPorte
Lawrence	Claude Dollens, Oolitic
Marion	O. H. Bakemeier, Indianapolis
	M. W. Manion, Indianapolis
	K. G. Kohlstaedt, Indianapolis
	Goethe Link, Indianapolis
	Ben B. Moore, Indianapolis
	Rollin H. Moser, Indianapolis
	Roy V. Myers, Indianapolis
	J. O. Ritchey, Indianapolis
Marshall	A. A. Thompson, Tyner
Orange	C. E. Boyd, West Baden Springs
Posey	W. E. Jenkinson, Mt. Vernon
Rush	C. C. Atkins, Rushville
St. Joseph	Morris Balla, South Bend
	A. S. Giordano, South Bend
	Geo. W. Rosenheimer, South Bend
Shelby	W. D. Inlow, Shelbyville
Sullivan	J. R. Crowder, Sullivan
Tippecanoe	Earl VanReed, Lafayette
	Gordon A. Thomas, Lafayette
Vanderburgh	Robert R. Acre, Evansville
	Minor Miller, Evansville
Vigo	Ernest O. Nay, Terre Haute
	M. C. Topping, Terre Haute
Wabash	O. G. Brubaker, North Manchester
Washington	Claude B. Paynter, Salem
Wayne-Union	Harry P. Ross, Richmond
	Will A. Thompson, Liberty
Whitley	Paul Garber, South Whitley

County	*Delegates*
	Councilors
First District	I. C. Barclay, Evansville
Second District	H. C. Wadsworth, Washington
Third District	W. H. Garner, New Albany
Fourth District	J. C. Elliott, Guilford
Fifth District	A. M. Mitchell, Terre Haute
Sixth District	Samuel Kennedy, Shelbyville
Eighth District	E. H. Clauser, Muncie
Ninth District	Floyd T. Romberger, Lafayette
Twelfth District	H. L. Murdock, Fort Wayne
Thirteenth District	Alfred Ellison, South Bend

Past Presidents

E. M. Shanklin, Hammond
Charles N. Combs, Terre Haute
George R. Daniels, Marion
F. S. Crockett, Lafayette
R. L. Sensenich, South Bend
E. M. VanBuskirk, Fort Wayne
M. A. Austin, Anderson

Officers

C. H. McCaskey, Indianapolis, president
J. T. Oliphant, Farmersburg, president-elect
A. F. Weyerbacher, Indianapolis, treasurer
Albert Stump, Indianapolis, attorney
Thomas A. Hendricks, Indianapolis, executive secretary

Delegates to A.M.A.

Don F. Cameron, Fort Wayne
H. G. Hamer, Indianapolis
J. E. Ferrell, Fortville

ELECTION OF OFFICERS

Election of Officers resulted as follows:

President-Elect: N. K. Forster, Hammond.

Treasurer: A. F. Weyerbacher, Indianapolis.

Delegates to A.M.A.: Don F. Cameron, Fort Wayne, F. S. Crockett, Lafayette.

Alternates: N. M. Beatty, Indianapolis, A. M. Mitchell, Terre Haute.

PLACE OF MEETING

Place of Meeting for 1944: *Indianapolis.*

THE PRESIDENT: It is now my pleasure to introduce your President-elect, Doctor Forster.

DR. N. K. FORSTER: I am profoundly sensitive of the high honor you have conferred upon me and I am deeply conscious of what it means.

Your time and efforts are expendables in your considerations of the many problems awaiting your decisions, and I will not encroach upon them further.

For Lake County and the Tenth District and for myself we offer you our sincere appreciation and gratitude for this recognition. We pledge our steadfast efforts in cooperation with and for the American kind of medicine. Thank you.

Election of Councilors

Third District (to succeed Dr. Garner), A. P. Hauss, New Albany.

Sixth District, Samuel Kennedy, Shelbyville.

Ninth District, F. T. Romberger, Lafayette.

Twelfth District, H. L. Murdock, Fort Wayne.

REPORTS OF REFERENCE COMMITTEES

SECTIONS AND SECTION WORK

House of Delegates,
Indiana State Medical Association.

Gentlemen:

We, the Committee on Sections and Section Work, highly commend the various sections on their programs. Many excellent papers were presented, and we noted with pride the number of Navy men participating.

The scientific exhibit on the mezzanine floor of the Claypool Hotel was interesting, informative, and reflected great credit on its committee.

We greatly appreciate the efforts of the Committee on Scientific Work in presenting the very excellent programs at this annual session.

Respectfully submitted,

M. R. LOHMAN, M.D., *Chairman.*
ROBERT F. HARRIS, M.D.
W. M. MILEY, M.D
ROLLIN H. MOSER, M.D.
MINOR MILLER, M.D.

RULES AND ORDER OF BUSINESS

Nothing having been referred to this committee, it had no report to make.

MEDICAL EDUCATION AND HOSPITALS

Nothing having been referred to this committee, it had no report to make.

REPORT OF REFERENCE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

House of Delegates,
Indiana State Medical Association.

Gentlemen:

1. Report of the Committee on Public Policy and Legislation

(a) The printed report: Your reference committee submits that the Committee on Public Policy and Legislation should be commended for its splendid work during the past year, and recommends the adoption of the report of this committee as printed on page 54 in the Handbook.

(b) Supplemental report, delivered to the House by Dr. Norman Beatty, chairman: Your reference committee agrees with the supplemental report of the Committee on Public Policy and Legislation that the Public Relations work of the Indiana State Medical Association must be expanded and increased.

Your reference committee suggests, however, that a more capable and experienced Public Relations expert than Mr. Hendricks can not be employed, and urges, therefore, that the Executive Committee, in conference with Mr. Hendricks, employ whatever additional personnel may be required in the headquarters' office to release Mr. Hendricks for increased activity in the work of Public Relations.

(On motion of Doctor Howard, seconded by Doctor Daniels, this report was adopted.)

2. Report of Permanent Study Committee on Health Insurance

Your reference committee recognizes the need for a health insurance plan that will not interfere with the delivery of the best medical service, that will provide for the relationship of the insurer directly with the patient and not with the physician—a cash indemnity plan that will not interfere with the patient-physician relationship. Your reference committee, therefore, recommends (a) that the Permanent Study Committee on Health Insurance be directed to draft the provisions of the best available plan; (b) that such plan be presented to the Council of the Indiana State Medical Association for its consideration and approval; and (c) that such plan be presented to the Association for its endorsement and presentation to the public.

Your reference committee directs your attention to its recommendations regarding the report of the Permanent Study Committee on Health Insurance.

(On motion of Doctor Howard, duly seconded, the above report was adopted.)

3. Your reference committee recommends the adoption of the report of the Liaison Committee of the Division of Services for Crippled Children as printed on page 79 of the Handbook.

(On motion of Doctor Howard, duly seconded, the above report was adopted.)

4. Your attention is directed to the majority report of the Committee to Study Cultists and Irregulars on page 89 of the Handbook. The committee states: "We advocate again an annual registration by our State Board of Medical Registration and Examination of all persons in the state claiming to practice the healing art by any system, and a small registration fee annually to be used by the State Board of Registration for the enforcement of the laws regulating such practices."

Your reference committee respectfully recommends the adoption of the majority report of the Committee to Study Cultists and Irregulars, as printed on page 89 of the Handbook. I move the adoption of this report. (Seconded.)

DOCTOR DANIELS: I would like to ask Doctor Howard if he has any idea how much that would tax us.

DOCTOR HOWARD: This was gone over with Doctor Ellison, and he states that it is almost impossible to keep track of practitioners, although for years they have been trying to work out some plan. We feel that it is necessary to have an annual registration fee, probably one dollar.

DOCTOR DANIELS: Let us put that in the motion.

THE PRESIDENT: Do you want to restate your motion, Doctor Howard?

DOCTOR HOWARD: I think instead of a "small" registration fee I will say a fee of one dollar be assessed by the State Board of Registration. As it is, a man could come in and practice in a community for four or five years and nobody would check to see if he is licensed. A great many states have an annual legistration law. Illinois and New York, and the dentists in Indiana have it, and it is no trouble to them. But it is up to you what you want to do.

DR. MINOR MILLER: It there any provision that the tax paid shall be in the hands of the committee, or in the general fund?

DOCTOR DANIELS: The money that is left with this Board returns to the general fund. However, I hope they spend every cent of it.

DR. WILLIAM C. WRIGHT, Fort Wayne: This question of annual registration comes up each year. Each time it has been rejected by the House of Delegates. Our objection to it is that we would not have absolute control of such money, since if there was a surplus it would revert to the general fund of the state. I would rather see the money needed by our Board of Registration appropriated from our treasury. I would not object to an annual registration fee if we had a basic science law.

DOCTOR LOHMAN: There is an osteopath and a chiropractor on the State Board of Registration and Examination.

DOCTOR PAYNTER: I have expressed myself for ten years before the House of Delegates on this matter, and it has always been turned down. I am not here to make a fight for this because I think Doctor Wright is correct. In the passage of a law of this kind we should have the basic problem of science given to these applicants. I believe his suggestion is right, and I think the committee in charge of legislation should formulate a bill, and I believe a representative could be found who would sponsor it and take care of this problem in such a way that we could follow the best method possible.

DOCTOR OLIPHANT: Unfortunately you can not consider any of the funds of this body to go to the State Board of Medical Registration because they depend for their funds on the doctors of the state, not on groups. That is where they obtain their funds—from the individual doctors. If this goes into effect the members of all groups will be required to register the same as the physicians. I do not see how we can possibly keep track of those who are not entitled to practice medicine in Indiana without some kind of annual registration. This will give the secretary of the State Board an opportunity, once a year, to check off these people who are not entitled to practice.

As to the amount of money, the funds of the State Board come from license fees, and that is so small that you do not need to be worried about how much money will be left because there will be no money left. There are a lot of things that need to be revised about the State Medical Registration law that are not mentioned in these resolutions. The law is antiquated. It provides for representation on the Board of regulars, homeopaths, physiomeds, osteopaths and eclectics. There has not been a physio-med college in operation since 1907, and no homeopaths or eclectics for years. The question is whether we shall allow ourselves annually to be counted and checked up. I do not see how you are going to enforce any medical law unless you know who is entitled to practice. We must clean our own house first. I can not see any objection to this. As to the basic science law, I think the Indiana medical law is better than the basic science law. If you have the basic science law, a lot of people might qualify under that law who have taken correspondence courses, or some extracurricular way of getting their credits. As it is, the present law requires that everyone shall have at least two years of college education, and it specifies the subjects to be taken in those two years, so that is better than the basic science law. I do not see why anyone except the irregulars should be opposed to annual registration. Every year when this registration is made the State Board of Medical Registration will make up a roster of all those in the state who are entitled to practice, and this will be distributed to the county medical societies, and each county can see who in its community is not entitled to practice.

DR. PAUL GARBER: I move that that portion of the report be tabled. (Motion seconded, and lost.)

DOCTOR SHANKLIN: I move the previous question. (Motion seconded by Doctor Daniels.)

DOCTOR CROCKETT: Is this limited to one dollar?

THE PRESIDENT: We did not vote on the amendment to make this fee one dollar. All in favor of the amendment to make the fee one dollar, say Aye.

DOCTOR CROCKETT: If you limit it to one dollar you will cramp the activities under this whole motion. In previous sessions we had it not to exceed two dollars, and we figured that this would give about twelve thousand dollars for the enforcement of this law; but with one dollar there would only be about five or six thousand dollars, and that is not enough.

THE PRESIDENT: We will reconsider the motion just passed.

DOCTOR DANIELS: The thing is that we could perhaps go into Tipton and Marion counties and give this thing a whirl and see how much one dollar would do. We will be back here next year, and if it is necessary to raise the levy we can do it.

DOCTOR OLIPHANT: The present income of the board is between six and seven thousand dollars, which just about takes care of the administration cost of the office. With the addition of some three thousand dollars income under this motion, we can try the thing out.

DOCTOR SHANKLIN: I think Doctor Oliphant is mistaken about it giving three thousand dollars; it will be about five thousand dollars. We have four thousand medical men in the state and one thousand to fifteen hundred irregulars. That will net about fifty-five hundred dollars additional with the one dollar fee.

DOCTOR MITCHELL: This will not take effect until 1946.

THE PRESIDENT: Not until after the legislature of 1945. They may not pass the bill then.

DOCTOR SENSENICH: May I ask Doctor Shanklin about the registration? As I understand the operation of the registration law in the various states where this law has been enacted, the registration fee is paid only by those who are actually licensed to practice, and no money would be paid by the irregulars.

DOCTOR SHANKLIN: Yes, there would. We have licensed over three thousand of them.

DOCTOR SENSENICH: I thought the irregulars were not to be brought into the fold.

DOCTOR SHANKLIN: They are already in.

DOCTOR DANIELS: Those fellows pay the same as we do. When that bill was passed everybody who had practiced medicine for two years was brought in, and it did not make any difference if they did have a Ph.D., they came in the same as the others, and this registration fee will apply to everybody who is licensed.

DOCTOR SENSENICH: When were these amendments passed? If they had not contained a "grand daddy" clause, then we could prosecute these men for practicing illegally.

DOCTOR DANIELS: A number of fellows have taken the bull by the horns and are practicing without a license, and this law would enable the Board to find them.

ALBERT STUMP: In 1927 the Medical Practice Act was amended. That was the last amendment. It provides that if a person practices medicine without a license he can be brought before a court, and the court may inquire whether he has a license to practice. Prior to that time the only thing that could be done to stop one from the unlawful practice of medicine was to try him on a criminal charge before a jury of twelve persons from the same community in which he practiced. If he was convicted he could be fined $25.00 and would be subject to no further penalty. The 1927 Act gives to the judge, without a jury, the power to find whether one is practicing without a license and to order him to cease practicing until he obtains a license. Then if he practices further without a license, he is in contempt of court and the court can send him to jail for that contempt. The 1927 amendment thus takes care of the situation and effectively prevents the continuing practice of medicine by a person who is brought before the court and ordered by the court to quit practicing. This order is called an injunction.

In order to get the amendment passed, it was necessary to make some concessions to get enough legislators to vote for it. Otherwise, there would have been no enforceable medical practice act, since under the old law, under which there could be only a criminal procedure which required the unanimous concurrence of twelve jurors to convict one of a violation of the Act, as a practical matter it was almost impossible to obtain convictions. One of the concessions was that there should be an additional member of the Board of Medical Registration and Examination who should be selected from any group or school of medicine, or practitioner of a form or method of healing not at that time represented on the Board. As a result of that concession the Board now consists of one physiomedic, one eclectic, three allopaths, one osteopath and one chiropractor. That makes five who may be regarded as regulars and two irregulars. There had to be a concession also of a "grand-daddy" clause to get the law passed. With those concessions it passed the House of Representatives by a vote of 51 to 49—a bare constitutional majority. To get that extra vote Representative Eikenberry, of Wabash, was brought in on a stretcher from the University Hospital to cast his vote.

Since the 1927 Act the Board has not changed the requirements for license. It requires that one be a graduate of a recognized medical school, conforming to standards set up by the Board. He must have two years of pre-medical training and four years of medical training. An applicant can not even take an examination before the Board if he does not meet these minimum requirements. Only the osteopaths, in addition to the medical doctors, maintain any schools that meet these requirements, but some of their schools have met these minimum requirements and their graduates are permitted to take the examinations.

The Lincoln Chiropractic College, in Indianapolis, gives what they call a four-year course. They claim their graduates should be permitted to take the examinations before the Board. A suit obviously sponsored by the school was brought in the name of one of their graduates against the Board to compel it to give him an examination. Dr. Shanklin will remember that case. The court held that their graduates could not be permitted to take the examination unless the school met the requirements fixed by the State Board of Medical Registration and Examination, and that the Board was the judge of whether the school met the requirements. The Board held that the Lincoln school did not meet the requirements. No chiropractic or any similar cultists' school comes near meeting the requirements.

Thus, under the decision of the Indiana Supreme Court no one can get a license to practice any form of healing in Indiana unless: first, he is a graduate of a school recognized by the State Board; or, second, he qualifies under the "grand-daddy" clause. To qualify under the "grand-daddy" clause one must have been engaged in the practice of some limited form of healing, like chiropractic, on January 1, 1927, taught by some school of which he was then a graduate.

It seems to me that this annual registration fee for the enforcement of the law, with five regulars on the Board, will solve the whole problem.

DR. W. E. JENKINSON: If this fee is assessed, does that money go to the board, or does it go into the general fund to be operated as a budget?

THE PRESIDENT: It goes to the Board.

DOCTOR JENKINSON: And anything left over goes into the general fund?

THE PRESIDENT: Yes.

DR. WILL A. THOMPSON: If you doctors who are opposed to this registration could be in the legislature and on some of the committees, I believe that you would favor this. Every two years somebody tries to put through a law in favor of the chiro-

practors, and they have a lot more money than we have. I take it that this fee is to find which chiropractors are licensed and which are not. Let us register and settle this question of who should practice and who should not.

DOCTOR SHANKLIN: I move the previous question.

THE PRESIDENT: We will first vote on the amendment to make the fee one dollar. All those in favor signify by saying Aye. It is carried.

DOCTOR SHANKLIN: Now I move to adopt the report of the committee as read. (Motion seconded and carried.)

DOCTOR HOWARD: 5. Your reference committee recommends the adoption of the report of the Committee on Medical Relief as printed on page 100 in the Handbook. (Motion seconded and carried.)

6. Resolution Regarding A.M.A. Legislative and Public Relations Activities

Your reference committee has amended this resolution by striking out premises that appear to be logical arguments in favor of the resolution, but are deemed not essential to the conclusions. The shortened resolution is presented as follows:

"WHEREAS the public has reacted against the policies and actions of the American Medical Association and its representatives, and is reacting favorably toward the Wagner-Murray Senate Bill 1161; and

"WHEREAS the high standards of practice and the unparalleled achievements in public health that have resulted from the American system of private medical practice are threatened with destruction because much of the American public and many of its congressional representatives misunderstand and are therefore prejudiced against organized medicine; and

"WHEREAS organized medicine is entirely without voice or representation at the national legislature, presumably because the American Medical Association seeks to preserve a tax-exempt status by refusing to engage openly in legislative work at a time when the future of American medicine is at stake; and

"WHEREAS we are not now organized to protect the public or the profession, because actions taken and public health recommendations made by the House of Delegates of the American Medical Association *remain only words on the record* and are not translated into action or successfully enforced in the public interest upon the elected servants of the public; and

"WHEREAS the American Medical Association has created the public impression that it opposes the reasonable public desire for an application of the insurance principle to the costs of medical and surgical care, whereas, both in the public interest and as a preventive measure against state medicine, it should itself have established, or at least cooperated actively in the establishment of the kind of voluntary health insurance plans that do not interfere with the delivery of the best medical and surgical service; and

"WHEREAS the American Medical Association has not represented to the public the true and unselfish character of the organized American physician, and has not delivered to the organized profession the good Public Relations it so richly deserves; and

"WHEREAS the application to the American Medical Association of the philosophy and methods of sound Public Relations would not only have obviated the legislative problems of the moment, but would have given to the organized profession the security guaranteed by a deserved position of public understanding and confidence; therefore be it

"RESOLVED, That the American Medical Association immediately submit itself to the treatment and unhampered guidance of the best-qualified Public Relations expert available; and be it further

"RESOLVED, That an office of the American Medical Association immediately be opened in Washington, with a staff headed by a capable full-time representative in addition to the Public Relations expert mentioned above who will advise with members of the Congress regarding the health implications of bills presented to them, and who will maintain close contact with state associations and county medical societies so that they may join in an effective legislative activity for the organized profession; and be it further

"RESOLVED, That the American Medical Association headquarters' office be reorganized and its staff expanded so that it will not only make studies and recommendations, but, in the public interest, will succeed in the actual accomplishment of the things American physicians want, and for which they have organized themselves and established a headquarters' office."

Your reference committee respectfully urges the adoption of this resolution as amended, and further recommends that the resolution be sent to all other state medical associations, to the delegates of the American Medical Association, to the Board of Trustees of the American Medical Association, and to the Council on Public Relations of the American Medical Association.

DOCTOR HOWARD: This resolution has caused considerable comment, and one reason we introduced it was to stir up discussion, and it certainly has done that. If it has done nothing else it is worth while. Your reference committee moves the adoption of this report. (Motion seconded by Doctor Shanklin.)

DOCTOR SENSENICH: I am not going to speak against the resolution, but I want to call attention briefly to two things. In the main the material in this resolution has been covered by the Council on Medical Care and Public Relations which has already been set up by the American Medical Association. Because I feel that many have not read the report of the meeting in June, as to its duties, I quote:

"(a) To make available facts, data and medical opinions with respect to timely and adequate rendi-

tion of medical care to the American people; (b) to inform the constituent associations and component societies of proposed changes affecting medical care in the nation; (c) to inform constituent associations and component societies regarding the activities of the Council; (d) to investigate matters pertaining to the economic, social and similar aspects of medical care for all the people; (e) to study and suggest means for the distribution of medical services to the public, consistent with the principles adopted by the House of Delegates, and (f) to develop and assist committees on medical service and public relations originating within the constituent associations and component societies of the American Medical Association."

This resolution was passed, and in due time the Council was set up and includes all the things included in this resolution save the Public Relations staff. However, that is a part of the proposed work of that group. Public Relations is not new. Perhaps we need to be reminded that as long as ten years ago the Indiana association developed a "contact plan." That was set up for the purpose of contacting such groups as the labor group, the farm group and a variety of groups. It was approved by the A.M.A. The legislative committee carried on this work for years. I have a word to say about Public Relations because I feel that pretty keenly. I do want to bring to your attention that there is a tendency, unfortunately, to use "whereases" that are sometimes extravagant overstatement, unfair in criticism and based upon impression rather than proved fact before we come to the real recommendations, and that these resolutions, being sent out to the different state associations in the United States, furnish fuel to the enemy, since in many cases they support the wishes of those who oppose you. It is the most unfortunate type of Public Relations that I could conceive of, and it seems to me that the distribution of this kind of material all over the United States may be construed as an evidence of disunion. In other words, if you have a partner you do not tell the world that he is a so-and-so; you try to help him correct his mistakes, if proved.

Doctor Romberger: I wish to say that I am heartily in favor of this resolution. It was my privilege a few weeks ago to attend the Wisconsin State Association and sit in on their council as chairman of the council of the Indiana State Medical Association, and there I met Doctor West, for whom I have the greatest admiration. In the words of ex-Governor Smith of New York, I do not attack personalities, I attack principles. I heard Doctor West say, in a private talk, "We at the American Medical Association cannot do anything unless we are asked to do it by the component state organizations." In other words, in my humble opinion, for many years they have wanted to be pushed. I disagree with the last speaker (personally, I love him) that this will be fuel for our enemies. I feel it will be a push for the American Medical Association. Let us get together on this and have some goal. I do not feel that simply passing resolutions will defeat the Wagner-Murray-Dingell Bill. I believe every single man who belongs to a county society, and every county society in this sovereign State of Indiana, must be organized to the last man. As chairman of the Council, I wish that every county society would write and tell us what they want us to do. A motion probably will be before the House with regard to a referendum which was introduced. I agree with it, and we on the Council want to hear what the average man wants to accomplish in Indiana. I wonder if any of you caught something that appeared in the September issue of *Fortune*. It is an analysis of the political trend in the Middle West. It is brief, and consequently it will give you an idea of what the Council and the Executive Committee are honestly and sincerely trying to do as your representatives. I quote:

"To the majority of people of the Middle West today, Washington means Roosevelt, and not Congress. Washington is now racing to the right. Roosevelt is moving to the right himself, only not fast enough and far enough to suit the pacemakers in Congress; he is trying to follow the trend by joining it. But the people have not gone to the right; they still want the government to give them things, and they are as set as they were in 1932 against any Washington clique that gets in the way of their getting more."

Your president has written on the President's Page that the American Federation of Labor is going to support the Wagner Bill one hundred per cent, and Dan Tobin has written his unions not to spend any money for medical care and hospitals because they expect the government to take care of that. That is what we are up against. We in the Council want to hear from the members, and particularly do we want to know what the county medical societies want us to do.

Dr. Don D. Bowers: I move that we amend the resolution as follows: To make it mandatory to have our A.M.A. delegates carry out the spirit of this resolution. (Motion seconded by Doctor Ritchey, and carried.)

Dr. J. R. Doty: The Public Relations man in our county is our secretary, and he tells us what we have to do is this: clean house first, and then you can go to the public and do something. The American Medical Association is getting some criticism, and some of it is needed; there is no question about that. Our county secretary received word the other day on this motion regarding funds for the aid of children—that it would not be called out of the Senate Committee before October fourth; that came from the gentleman from the American Medical Association. The next morning he got another telegram that it had been reported out the day before, twenty-four hours after he had received word that it would not be reported out

before October fourth. In other words, these men sitting in Chicago do not know what is going on down in Washington. Another thing, they antagonize everybody in Washington. It is time we got somebody down there who could do us some good. This is an emergency. One bill has been passed, and another probably will be passed, and there seems to be nothing we can do. I think it is time the Council of the American Medical Association took some action now, not in 1946 or 1948. Clean house in the American Medical Association and then in our state association, and then we can go to the public and ask for their support.

Doctor Sensenich: Much of this legislation is being passed without any hearing, and in instances where hearings are held the chairman of the committee is always consulted as to when the hearings will be held, and we ask to be represented. We can not help it if the chairman of the committee does not inform us properly.

Doctor Doty: Who do you depend on to get the information?

Doctor Sensenich: The chairman of the committee gets the information.

Doctor Doty: And wires it to Chicago?

Doctor Sensenich: The man who was on the job inquired and was told that the hearing would not be held until October. Now I am not defending anyone, except in this—after all, your officers of the American Medical Association are doing the best job they can. There are those who say you should have representatives in Washington, and those who say you should not have representatives in Washington, but the ones we have consulted should know more about it than anyone else; they have had experience in Public Relations; they stay out of politics; they have no axe to grind, and they are not dependent upon votes. There is a perfectly proper difference of opinion, and the American Medical Association welcomes your suggestions, your help and support and your criticism, and my only complaint in this instance is. let us please not imply too much, let us give some reasonable recognition of the efforts that are being made. We had hoped that this resolution might be something of a sounding board. Here was a chance for publicity; you could have gone into the papers and broadcast a constructive program. The best effort in the direction of Public Relations is to find what the public wants and give it what it needs. But the kind of criticism that is not constructive does not make good publicity.

Doctor Shanklin: It is quite interesting to me, Mr. Chairman and Gentlemen, the sudden activity and interest of the American Medical Association in some of these economic problems that to my personal knowledge have been before them since November, 1932, which is quite a stretch of years —eleven years next November. That was my first attendance at the meeting of secretaries and editors held in Chicago. Whether it was one of the secretaries, or an editor, I do not know, but it was a gentleman from Michigan, who, when this matter of health and hospital insurance, or something like that, was first talked about, said the American Medical Association was already about ten years late in getting it started. Also, to my certain knowledge, probably thirty or forty plans developed by county medical societies and state medical organizations were passed over the desk of the secretary and general manager of the American Medical Association, and the word "No" written on every one. That is a matter of record.

Dr. W. D. Inlow: We have near our county a doctor who sat in the National House of Representatives for twelve years. He retired last year. Recently I talked to him in the hospital and asked him what the feeling of the House of Representatives was on this bill, and I found out that he felt the House of Representatives was against the American Medical Association; that they seemed to have an idea it was in with big business. I did not argue it with him, but I wondered why he felt that way.

Dr. F. T. Romberger: I would like to ask if it is not true that this House of Delegates has a right to express an opinion to the American Medical Association. However Indiana feels, that is the way I feel.

Dr. E. S. Jones: I was talking to ex-Senator Minton about some of the things that come up in Washington, and he said, "You have the most powerful group in the United States, yet you do nothing about it, and we do not know what you fellows want or what your wishes are." He said "When I was in Washington, anything that came up from a medical association or the American Medical Association was done, but there was no action so far as your organization was concerned. If you fellows would get into it, there is no organization in the United States that could compare to yours in controlling matters." Since there are 135,000 doctors in the United States, it seems to me that we should *not* have to sit back and let Tobin or Lewis tell us what we have to do. I think it is time something was done.

Doctor Sensenich: I want to agree heartily with what Doctor Jones says, that there is no group in the United States with the tremendous possibilities for enforcing and establishing its own desires as the medical profession. I have always insisted upon that. Second, the American medical profession never was in as strong a position as today. There are some spots that are weak, and one of the weakest spots is contact with local groups. After all, your legislators will listen to you. Let us not excuse ourselves by feeling that our present attitude will save the situation, because it will not. Some groups have tremendous pressure capacity. We cannot compete with them down there, but you in your own locality, if you study the bill and know what it means, can discuss

it with the public and with your legislators. That is getting around to the Public Relations that Doctor Beatty's report refers to.

DR. ————*: It seems to me since we are trying to do something constructive under this program that we have overlooked one thing, and that is that we should have a Public Relations expert, not in Washington, but in Chicago, whose duty would be to keep the members of the profession all over the country, through the county medical societies, informed on some of the things that we do not know now. I do not pretend that we are perfect; we have our shortcomings as a profession and perhaps need some criticism, but we should have an expert in Chicago who would hand down to us some of the things about which we should be informed.

DOCTOR HOWARD: Your reference committee on Public Policy and Legislation has been aware of a general misunderstanding of the term "Public Relations," and, so that there may be no misunderstanding regarding the proposals of this committee and the Indiana State Medical Association, the following is submitted:

"Public Relations, as referred to in the deliberations of the House of Delegates of the Indiana State Medical Association, is not press-agentry or the psychological face-lifting job usually called 'molding public opinion.' It is rather a philosophy of management of the affairs and responsibilities of the association that examines every action in terms of its ultimate contribution to the improvement of the health of the public. Public Relations first corrects deficiencies within the association, first works toward the perfection of the distribution and quality of medical care; and, second, informs the public what has been done in order that public understanding and cooperation, in the public interest, may be acquired."

Your reference committee recommends the adoption of this definition. (Motion seconded by Doctor Daniels.)

DR. EARL VANREED: I think Doctor Sensenich hit the nail on the head when he said that we must contact individuals. I do not know what you think of the National Committee of Physicians, but they put out a circular regarding this bill in the Senate, and I sent for two hundred and sent them to patients and handed them out in the office, and you would be surprised to know the reaction of these people against such legislation when it is brought to their attention. They are the ones who will vote next time.

DR. GEORGE J. GARCEAU: I am rather a neophyte in this body. I have been listening for the last four or five minutes and trying to make something out of it, and it seems to me it boils down to this: It appears to me that we are trying to put the editor of *The Journal of the American Medical Association* aside and send somebody else to Washington to represent him as a Public Relations man. If I am wrong, I would like to be corrected, but apparently that is what it boils down to—that we may have someone who will represent American Medicine who is at least liked by the doctors, by the public, and by the men who represent us in Washington. It would appear to me that this resolution should be pushed to the limit and that we should get a man to represent us in Washington who would represent American Medicine as we would like to have it represented. The man who is sent there should be carefully chosen, one who will be liked in Washington and can carry out everything we have talked about here this morning.

(The vote to adopt the resolution, as amended, was carried.)

(The vote to adopt the definition of the term "Public Relations" was carried.)

7. Tippecanoe county Resolution:

8. Shelby County Resolution:

9. Marion County Resolution:

Your reference committee has given careful consideration to the excellent resolutions pertaining to the inroads and threats of political medicine, and to avoid repetition and duplication, has attempted to combine the best features of each in the following:

I. The Indiana State Medical Association, concerning itself only with the public welfare, is unalterably opposed to the Wagner-Murray-Dingell Bill for Social Security which is now pending before the Congress of the United States (S. 1161; H. R. 2861). The system of political medicine it proposes to establish under the virtual dictatorship of the Surgeon General of the United States Public Health Service will injure the public it pretends to benefit by lowering the quality of medical services rendered to the sick, as has been the experience in other countries that have adopted similar systems.

II. The Indiana State Medical Association is unalterably opposed to the Wagner-Murray-Dingell Bill (S. 1161; H. R. 2861) because it proposes to destroy the freedom of Indiana's 1180 physicians in the armed forces while they are away and fighting for freedom. The Association recommends to each of its constituent county societies that they write to their members who are now in their country's service, obtain their reactions to the Wagner-Murray-Dingell Bill, and that these reactions be published.

III. The Indiana State Medical Association urges each of its constituent county societies to set aside one meeting in the immediate future for a consideration of the Wagner-Murray-Dingell Bill, and will make available to the county societies speakers from the Association Speakers'

* *The reporter did not get the name. If anyone can give us the name, we would like to have it so that we can clear our records.*

Bureau to acquaint members with the true implications of this system of political medicine.

IV. The Indiana State Medical Association, in the public interest, mandates its Council and its Executive Committee and Committee on Legislation and Public Policy to spare neither time, trouble nor expense to defeat this and all similar bills proposing political medicine to the extreme limit of the association's power and resources.

V. The Indiana State Medical Association is fully aware of the importance to good medical service of the preservation of the ideal patient-physician relation, and will therefore oppose any plan or system of medical care that deprives the patient of a free and unrestrained choice of physician.

Your reference committee recommends the adoption of these principles and statements and further recommends that copies be sent to secretaries of the other state medical associations.

Doctor Howard: I move the adoption of these resolutions. (Motion seconded by Doctor Daniels, and carried.)

Doctor Howard: I move the adoption of the Report of the Reference Committee on Public Policy and Legislation, as a whole. (Motion seconded by Doctor Daniels, and carried.)

REPORT OF THE REFERENCE COMMITTEE ON PUBLICITY

House of Delegates,

Indiana State Medical Association.

Gentlemen:

Reading the report of the Bureau of Publicity convinces one that the members of the committee realized the importance and scope of their work which they have so well accomplished through (1) the use of the press, (2) furnishing competent speakers for both lay and professional groups, (3) acting as an advisory committee for the Medical Auxiliary, (4) encouraging a greater interest in medical history, and (5) its recent entrance into the radio field.

Although it is not so stated by the Bureau report, this reference committee is convinced that the majority of the component county societies have been negligent in their cooperation with the Bureau and have done very little in this field that is now more important than in the past to the welfare of the medical profession and the maintenance of the desirable type of medical practice existing before so many of our members were taken into military service.

This committee recommends that each county society be requested to appoint a publicity committee to act in cooperation with the State Bureau of Publicity, and strongly recommends that the local press of each county be used for publicity even by the purchase of space to give the public helpful suggestions concerning health and hygiene and true information concerning proposed legislative action.

We especially wish to compliment the Publicity Bureau on the splendid beginning they have made in the radio field. The record of thirty-three radio programs of the character they have thus far given certainly merits the approval of the delegates with instruction that they be regularly continued. Such programs unquestionably give the greatest opportunity for publicity of a high quality constantly supervised by the Bureau.

We commend the work and report of the Bureau of Publicity and move the adoption of the same.

G. V. Cring, M.D., *Chairman*
Earl VanReed, M.D.
C. C. Atkins, M.D.
M. F. Daubenheyer, M.D.
W. H. Lane, M.D.

(On the motion of Doctor Cring, duly seconded, the above report was adopted.)

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

Nothing having been referred to this committee, it had no report to make.

The President: Word has just been received that Captain R. C. Badertscher, of Bloomington, flight surgeon, has been reported killed in service in South America.

Dr. H. P. Ross: All of us hold Doctor "Jakie" Badertscher, of the faculty of the Indiana University School of Medicine, Bloomington, in the highest respect and regard. The loss of this son in action must be a very real personal loss. Therefore, I move that the House of Delegates instruct our executive secretary to send proper condolences to the family of Captain Badertscher. (Motion seconded by Doctor Daniels.)

The President: I have known Doctor Badertscher, of Bloomington (almost everyone calls him "Jake") for a long time and I know what a fine gentleman he is. I have had the pleasure of working with him, and I think the resolution is very appropriate. It will be taken by consent.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS

We, the members of your committee, wish to commend the reports of the president, president-elect, executive secretary, treasurer, chairman of the council, publication committee, delegates to the American Medical Association, and the report of the Executive Committee, with the exception of the paragraph on maternity and pediatric care of wives and children of service men. This portion has been referred to a special committee. We think that they have all done a swell job and should have the unanimous approval of this House of Delegates.

In regard to the report on group malpractice insurance, we wish to thank them for their diligent and extensive investigation of the subject, and recommend their suggestions to the House of Delegates for final approval or rejection, as we

feel that this should have the approval of the House of Delegates.

C. S. Black, M.D., *Chairman*
W. U. Kennedy, M.D.
Wm. Niles Wishard, Jr., M.D.
V. L. Turley, M.D.

Doctor Black: I move the adoption of the report, with the exception of the last paragraph. (Motion seconded by Doctor Daniels, and carried.)

Doctor Black: To make this effective, I move that the committee that submitted the report of malpractice insurance be continued with authority to act: Drs. Nafe, McCaskey, Asher, Oliphant, and in addition the president-elect, Doctor Forster. (Motion seconded and carried.)

REPORT OF CREDENTIALS COMMITTEE

Dr. George R. Daniels: I wish to commend the gentleman from the ex-capital who has so well served from time immemorial. Doctor Carver, before death took him, served with distinction, and Doctor Amy is the same type of man, and I wish to more than commend him. I am very happy to make this kind of a report. I move its adoption. (Motion seconded and carried.)

REPORT OF REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Reference Committee on Miscellaneous Business has read the following reports and approves them as printed:

Report of the Committee on Secretaries' Conference.

Report of Committee on Necrology.

Report of Committee on Indiana Inter-Professional Health Council.

Report of the War Participation Committee.

The committee heartily commends the Committee on Arrangements for their efforts in making this a most successful annual session.

We suggest that the recommendations made by the Committee on Physical Therapy be called to the attention of the members of the Executive Committee for such action as they see fit to take. Otherwise the report of this committee is approved.

The following resolution is referred to the standing Committee on Public Policy and Legislation:

"Resolved, that the Indiana State Medical Association go on record that the Legislature make it mandatory that an applicant to practice medicine in the state of Indiana be a full citizen of the United States."

We suggest that the proper authorities proceed to make Dr. Arthur J. Cramp an honorary member of the Indiana State Medical Association.

Respectfully submitted,
S. M. Cotton, M.D., *Chairman*
O. G. Brubaker, M.D.
J. R. Crowder, M.D.
L. D. Holliday, M.D.
John Habermel, M.D.

(On motion of Doctor Brubaker, duly seconded, this report was adopted.)

REPORT OF SPECIAL REFERENCE COMMITTEE ON MATERNITY AND PEDIATRIC CARE

Dr. M. A. Austin: Inasmuch as Doctor Rice reports that both Houses of Congress have passed the bill providing $18,620,000 to pay for maternal and child welfare care in confinement cases in the families of those in military service, there is no action which the state association or the county societies can take to block this so-called "planned-for" social insurance. It is the opinion of this committee that under the circumstances no action can be taken save by the individual county societies and the individual members of the respective county societies and, therefore, our recommendation is that this matter be entirely left to the various county societies, their committees and the individuals in the societies, either to accept or reject this Federal grant in aid.

We therefore commend the action of the Washington County, the Lake County, and the Tippecanoe County medical societies as expressing their own desires, but feel that they would not be the expression of the entire association, and especially of many members who are now participating and will have to participate in these various Federal procedures. Therefore, it is better for us at this time to emphasize the paragraph in the report of the Advisory Committee to the Bureau of Maternal and Child-Health when they express this fact: "It is the opinion of our committee that, under the circumstances and stress of this present great emergency of war, the medical profession is in an unenviable position to challenge this mandate. To the general public, service men and their wives, not to mention the Red Cross, USO and other organizations and individuals, the refusal to cooperate with this program might make us as superlatively unpopular as some of our hated labor racketeers in the defense industries."

We had open house yesterday afternoon and heard much discussion, all of which had truth in it. However, we believe that we were able to sift out the highlights of all that was brought up in discussion, and that this report which we have signed is a fair one.

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The report of this committee takes up, categorically, the report of the Executive Committee

as reported on pages 41 and 42 of the Handbook, and the report of the Advisory Committee on Maternal and Child-Health of the Board of Health, together with resolutions referred to this committee by the president of the State Medical Association at a meeting of the delegates September 28, 1943.

This committee now makes the following recommendations:

1. Report of Executive Committee:

We especially commend the committee for the following: "The Executive Committee of the Indiana State Medical Association is sure that action taken by Congress and the State Board of Health with regard to maternity and pediatric care of *needy* wives and children of enlisted men will meet with the hearty cooperation of the medical profession of the State of Indiana."

2. Report of the Advisory Committee to the Bureau of Maternal and Child-Health:

We appreciate the untiring effort of this committee in the solution of a difficult problem passed on to them by the Executive Committee of the Indiana State Medical Association, and this committee disapproves their action for the reason that they did not act in accordance with the express wishes of the delegates at their annual meeting at French Lick a year ago. Therefore, this committee recommends, that if in the future, because of Federal legislation or other unforeseen events, some major modification of established policy seems advisable, that no committee or officer of the association may presume to act without first obtaining permission through a suitable referendum of all the constituted county societies.

3. Resolutions by component societies:

After a study of the various resolutions relative to maternity and child welfare referred to this committee, we commend the respective societies for their study of this problem, and because of the similarity of the resolutions this committee has taken the privilege of dealing with them as a whole.

This committee wishes to recommend the following:

1. That the action of the Federal Government in making funds available for maternity and infant care for the wives and infants of enlisted men be approved.

2. That adoption be urged of a plan under which the Federal Government will provide for the wives of enlisted men, a stated allotment for medical, hospital, maternity, and infant care, similar to the allotments already provided for maintenance of dependents, leaving the actual arrangements with respect to fees to be fixed by mutual agreement with the wife and the physician of her choice.

We recognize that the federal law is now in existence, by which the State Board of Health is made the agency for the administration of the law, and that only through this agency can rules and regulations for the law's enactment be promulgated; therefore, this committee suggests that the State Board of Health seek directives covering No. 2 of our recommendations.

In closing this report, we wish to express the opinion that the entire maternity and infant care program contains some of the most vicious provisions usually encountered in systems of state medicine. This is the bridgehead by which further inroads into the private practice of medicine will be made easier.

M. A. Austin, M.D., *Chairman*,
Claude B. Paynter, M.D.,
William C. Wright, M.D.,
Clay A. Ball, M.D.,
P. Q. Row, M.D.

Doctor Austin: I move the adoption of the report. (Motion seconded.)

Dr. ——————*: This report is a little vague. Are we going ahead to accept the plan as it is, or is it to be further studied?

Doctor Austin: We could discuss this for the rest of the week and not come any nearer a definite conclusion. We do not want it, but we think this report states the situation fairly.

Doctor Jones: I would like to ask one question. I am quite in accord with the things the resolution brought out, with one exception. I did not see in this resolution any time limit as to how long we are to continue on the present basis. Are we going to take it with a definite time limit? How long are we going to practice as we are doing now? How long will practice under this resolution continue?

Doctor Austin: I suppose that it will be for six months after the duration. What will happen then, nobody knows, but I am of the opinion that this will continue indefinitely.

Doctor Jones: Then as I see it, if there is no concerted action by this association on this problem, as we are doing now, we take it and like it until the war is over and for six months thereafter. Is that right?

Doctor Austin: Yes.

Doctor Jones: I am unalterably opposed to it, but it seems that we are not going to do anything about it.

The President: Have you any suggestion to offer?

Doctor Jones: My suggestion is that an amendment be prepared and sent to Washington, to be presented to the House of Representatives and the Senate, that this thing will be continued in Indiana as it is for a period of three months, and at the end of three months make a decision whether we will continue.

Doctor Sensenich: The opinion is divided all over the country. Some states wanted the mother to receive the money, and that was the original impression in the American Medical Association.

* *The reporter did not get the name. If anyone can give us the name, we would like to have it so that we can clear our records.*

But other states differed. If you are not satisfied, let us come back to what you are going to do. After all, much of this is a matter of regulation set-up. Your bargaining is being carried on in this state by your State Health Department. In some other states it is different. Some states have declined to accept it. But we do not want to leave the impression with the public that you are not going to take care of these people, although as a matter of fact some obstetricians are not now accepting them at all, which has a bad comeback. If that grows, and even a small proportion of obstetricians and pediatricians refuse, individually, to have anything to do with it, then complaints will be coming in that the medical profession is not taking care of the wives and children of the men who are in service. The answer is not so simple. If you are not satisfied with it, instead of having someone else negotiate for you, take it up with the Board of Health, and if necessary present the proposal to Washington. The proposal need not go to Congress, but to the Bureau. See what can be done, find out what the plan is in some other states. If enough states could agree on a program, I have no doubt that some change could be made. I do not know how badly you want this change, but if you want it, do something, and do not blame somebody else for it.

Doctor Daniels: The thing about this is that it does not suit any of us. Ohio turned it down until they were forced to accept it, as I understand it. It is left by the Bureau to the individual. I am old and infirm, but I will be able to take care of it. My understanding is that if it is left to the individual the public can call you up and you can say "yes" or "no." I think the committee did a swell job and I think we ought to follow its advice.

Doctor Ross: In our discussion we are losing sight of the ones who are vitally concerned. We have not asked what the service men want. We have a law passed by Congress telling us certain things we must do, and we should go back to the original idea of Doctor Sensenich, and proceed in the proper direction. Let us ask the service men what they want. Personally, my health has been such that I have not been doing obstetrics to any extent, but one of my colleagues has, and in our small community of thirty-five thousand has delivered perhaps fifty wives of service men. He has charged full fees. That was before this particular legislation came into effect. Everyone of these service men paid him and sent him a personal letter thanking him for the service he had rendered. I can assure you that his fees are higher than the schedule that has been set up by this committee.

Now, why do we want to attack this from the standpoint of the service men? We can sell a bill of goods just as well as a group of politicians can sell a bill of goods. We have had expressions about publicity and Public Relations. I wonder if anyone has given this idea any consideration. We have been accused of being petty thieves and of presenting this from the standpoint of our personal feelings. After serving on the Public Health and Hygiene Reference Committee last year, that was concerned with the resolution that came before the House of Delegates at the French Lick session, there are certain things for which I want to publicly apologize. I personally tried to get a representative of the State Board of Health to be present for our deliberations concerning this problem, but could not find one available at the time our committee held its meeting, and so our committee did not hear both sides of it. We did not hear the viewpoint of the State Board of Health, and I want now to make an amendment of this report which is presently before the House, that we as a House of Delegates go on record publicly commending the action of Dr. Thurman B. Rice, as secretary of the Indiana State Board of Health, and of Doctor Jewett for their efforts in handling this critical situation in an acceptable manner. Doctor Nolting stated in his report that neither Doctor Rice nor Doctor Jewett wanted to take hold of this, and I am sure that neither one of these men were aware of some of the personal criticism that was given to this reference committee last year. Let us not allow our imagination to get the better of our judgment. These men are trying to do a job—maybe not the way I would like it, but they are trying to do an acceptable job. Let us give them credit for that.

The President: Will you state your amendment?

Doctor Ross: That the House of Delegates commend the efforts of Doctor Rice and Doctor Jewett in handling the administration of this particular law.

The President: Is there a second? There being no second, the motion is lost.

Dr. D. F. Cameron: I have a suggestion to make which I believe would help solve this problem. Doctor Rice has stated that the Board of Health really did not want this additional duty of furnishing obstetric and pediatric care to wives and children of the men in our armed forces, and I agree with Doctor Jones and the majority of the delegates here that we do not like to see the State Board of Health extend its activities further into the practice of medicine. So it seems to me that this House of Delegates might well direct the Executive Committee of our association to work out a plan if possible whereby such federal funds which are available be allocated directly to the proper officials of each county just as is done with other federal and state money. Then each county through its commissioners or trustees could arrange with the family doctor to furnish this care. Under this plan all arrangements for medical care and payment for it would be made locally by those who are acquainted with each other and the local conditions. In this way it can be handled with least red tape and greatest efficiency, and it cannot be so done by centralized bureaus in Indianapolis or Washington.

Doctor Jones: This is important to the life or death of the medical profession in the State of

Indiana and in the United States, and it is imperative that we act on it. Either Doctor Sensenich is wrong, or Doctor Jewett is wrong. Doctor Sensenich says it is left up to the Board to direct it.

DOCTOR SENSENICH: It is the Bureau in Washington.

DOCTOR JONES: Well, Doctor Jewett did not say "bureau" he said "Congress." But the wording is not so important. It is political medicine, it is not state medicine, it is political medicine, and whatever they propose resolves itself into this—it will be state medicine one hundred per cent. We put through a resolution opposing the Wagner-Murray-Dingell Bill, but it is state medicine either way. It seems to me that Washington is passing laws granting this service to the wives and families of service men, but they are not told what they are to buy with this money—they can do with it as they please. They could grant the woman $150 and let her choose the doctor she wants. If she does not want to go to the hospital, she is granted so much money; if she wants the doctor to deliver her for five dollars, if she chooses that kind of a doctor, that is her business. If it is one thousand dollars, that is her business and the doctor's business, and no one else's. The reason why I am for Doctor Austin's report is that we are willing to take care of these wives—I have yet to learn of anyone who objects to taking care of them, and I think it is fine for the Federal Government to appropriate a certain amount of money for these women, to be paid under their direction. But under the present status it is one hundred per cent state medicine. I for one would paraphrase Patrick Henry: "Give me life or give me death," and there is no difference.

DOCTOR AUSTIN: We have heard a lot of discussion as to whether the doctor should be paid directly by the government, or whether the government should pay the woman $150 and let her pay the hospital bill and the doctor's bill. The committee tried to be fair as far as that was concerned. But there is a difference in communities. I am in a mobile community where I do not know one out of one hundred of the people that I meet on the street. Doctor Paynter is in a community where he hardly sees a stranger once a week; he knows his people, and it is different. I am with Doctor Jones in being against state medicine, and I have been telling you for years that it is coming, and I am going to live to see the day when I cay say, "I told you so." I do not want it, but it is coming.

DOCTOR WRIGHT: I would like to move that the Board of Health inaugurate a plan by which funds for maternity and child care be allocated to the respective counties as is done in the care of the aged. (Motion lost for the want of a second.)

One thing more—I have a letter here from the Advisory Committee of the Bureau of Maternal and Child-Health, sent to the secretary of our county society a week or so ago. It has to do with the matter of consultants for cases needing maternity and child care. I should like to read a part of it and then have an expression of opinion on the subject, that I may take back to my local society. (Part of letter read.) We feel that a man should call into consultation any physician he chooses, as is his practice with private patients.

"September 1, 1943.

"To the Secretary of the County Medical Society.
"Dear Doctor:

"The Advisory Committee to the Division of Maternal and Child-Health of the Indiana State Board of Health asks that each county medical society select its own consultants for the various specialties, to serve as consultants in the Emergency Maternity and Infant Care Program for the families of men in the armed forces. Consultants should be selected for each of the specialties including obstetrics, pediatrics, surgery, urology, radiology, et cetera.

"It is preferable that men be selected who limit their practice to the specialty, but men may be selected who are recognized in their community and by their colleagues as qualified to provide consultant service in a special field.

"More than one consultant for each of the specialities can and should be selected if this is possible. Consultants selected need not reside in the county or be a member of the county society making the selection. It is not reasonable to expect that all county societies can select consultants within easy distance, nor will it always be possible to designate men for each of the various specialties. If it is not possible to designate a consultant residing within a radius of fifty miles of a county seat, a selection need not be made.

"Each society should place this matter as *first* under "new business" for their earliest medical meeting, and should send a list of selectees to the executive offices of the State Medical Association, Room 1021 Hume Mansur Building, Indianapolis, as soon as possible.

"Until the county society has informed the state offices of its selection, only the specialists certified by their respective American Boards will be considered consultants.

"Your prompt action in this matter will be greatly appreciated.

Very truly yours,

HENRY F. NOLTING, M.D., *Chairman, Advisory Committee to the Division of Maternal and Child-Health of the Indiana State Board of Health.*"

DOCTOR THOMPSON: The law is passed and the State Board of Health has the job. If this resolution is passed, it shows that this House of Delegates accepts this as the Federal law says. We are not in favor of it. At the expiration of six months after the duration we will still be unalterably opposed to it. My amendment is:

"This House of Delegates accepts this because it is the Federal law, and the State Board of Health has it, but we want to go on record as unalterably

opposed to it and accept it only until six months after the duration." (Motion seconded by Doctor Wadsworth.)

DOCTOR JONES: At the end of six months, then where are we? Just exactly where we are today.

(Vote on the amendment—lost.)

DOCTOR HOWARD: I would like to amend this question of the Executive Committee having authority to confer and make a deal with the State Board of Health along lines we have set up; that the money be paid directly to the patient; that we go along on this for three months, until this Executive Committee has had opportunity to make a deal with the State Board of Health, and do what seems best. At the end of three months something should be worked out. We can not wait until after the war is over. My motion will read that we accept it for three months, and during the interim the Executive Committee will make an agreement with the State Board of Health more in accord with our way of thinking.

DOCTOR JONES: I wonder if we might add that the amendment immediately be sent to Washington to our representative.

DOCTOR HOWARD: I want to give the Executive Committee power to make the best arrangement it can.

DOCTOR NAFE: What is "our way of thinking?" Is there a uniform way of thinking? The Executive Committee would have to have a definition of "our way of thinking" before proceeding.

DOCTOR HOWARD: I will change it to read, "to the best interests of the profession."

DOCTOR NAFE: We want to feel that it shows the way of thinking of the medical profession as a whole.

DOCTOR CAMERON: If I judge the sentiment of this House correctly, we do not want any of our committees to assist the State Board of Health nor any other governmental agency in pushing their activities farther into the practice of medicine.

DOCTOR SENSENICH: Personally, I would expect the American Medical Association to represent you. If this House would say definitely what changes you want—do you want the original resolution of the American Medical Association—that the money be paid to the mother? Some states voted the money should be paid to the doctor. Definite action is necessary.

DOCTOR DANIELS: I move that the amendment be tabled. (Motion seconded and carried.)

DOCTOR DANIELS: I move that the report as presented by Doctor Austin be adopted as a whole. (Seconded and carried by standing vote—29 for adoption, 22 against.)

REPORT OF REFERENCE COMMITTEE ON HYGIENE AND PUBLIC HEALTH

House of Delegates,
Indiana State Medical Association.

Gentlemen:

It is recommended that the request of Dr. C. M. Peterson, secretary of the Council on Industrial Health of the American Medical Association, be referred to the Committee on Industrial Health. Doctor Peterson's letter follows:

"Chicago, September 8, 1943.

"Dr. E. G. Jones, Chairman,
Committee on Industrial Health,
Indiana State Medical Association,
Calumet Building,
Hammond, Indiana.

"Dear Doctor Jones:

"Would it not be an excellent idea to use the present opportunity to get state workmen's compensation administrators and insurance carriers to do something about reducing the length and complexity of industrial accident and occupational disease report forms? Now that the profession is so overworked in every other way, this matter can be presented as a project of real urgency. If successful, I am sure the rank and file of the profession will be eternally grateful.

"No standard form can be suggested from this office because of variation in state requirements, but in general the effect should be to agree upon what medical information is absolutely essential and to propose revisions or modifications on that ground.

"Very truly yours,
"C. M. Peterson, M.D., Secretary."

It is suggested that the above committee contact clearing agencies for companies writing industrial and occupational disease insurance. In this manner we feel that the committee can effectively get concerted action from the various companies in briefing claim blanks and thereby lessening the clerical load on an already overworked profession.

The report of the following committees are approved as published:

Committee on Study of High School Atheletics.
Committee on Mental Health.
Committee on Prevention of Traffic Accidents.
Committee on Control of Cancer.
Committee on Venereal Disease.
Committee on Industrial Health (and supplemental report).
Anti-Tuberculosis Committee.
Committee on Conservation of Vision.
Committee on Hard of Hearing (no report 1943).
Committee on Civilian Defense.
OPA Medical Advisory Committee.

Respectfully submitted,

E. F. BOGGS, M.D., *Chairman.*
J. N. KELLY, M.D
A. E. STINSON, M.D.
R. J. HARVEY, M.D.
J. M. BURK, M.D.

(On motion of Doctor Harvey, duly seconded, this report was adopted.)

NEW BUSINESS

DOCTOR LOHMAN: I would like to present the following resolution:

We express our appreciation to the members of the Indianapolis Medical Society and to the Woman's Auxiliary for the splendid entertainment we have had during the last three days; also to the officers and personnel of the Ninth Naval District for the help given by them in making this meeting a success; also to the *Indianapolis Star*, *News* and *Times*, and the press services—A.P., U.P., I.N.B.S., and the radio stations WIRE, WFBM, WISH, and WIBC, and the stations at Gary, Fort Wayne, South Bend, Terre Haute, Muncie, Richmond and Kokomo

Also we express our thanks to our retiring president, Doctor McCaskey, for the way in which he has conducted the meeting; also to Tom Hendricks and his staff for the hard work they have done in the preparation and carrying on of this meeting. (Motion seconded by Doctor Daniels, and carried.)

THE PRESIDENT: I wish to announce the attendance—1,361. This does not include the medical students.

I wish to thank the members of the Indiana State Medical Association for the privilege of serving as your president during 1943. I have tried in my humble way to carry on as efficiently as my worthy predecessors.

I am quoting the following sentence from a speech I heard my father make in his later years: "I never want anyone to say of me that I am a 'has-beener.' If they should, they will soon find out that they are severely mistaken." I trust that I may carry on with that sentiment.

Following the closing words of the president, and on motion of Doctor Daniels, the 1943 session of the House of Delegates adjourned.

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

August 27, 1943.

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D., and T. A. Hendricks, executive secretary.

Radio program for the state meeting outlined. A script writer is to prepare these programs, which will be broadcast over the four Indianapolis stations and key stations throughout the state. The script will be written so that the local medical societies may select the physicians who are to take part in the broadcasts.

Radio records received from Dr. W. W. Bauer of the American Medical Association.

BUREAU OF PUBLICITY

September 24, 1943.

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D., and T. A. Hendricks, executive secretary.

This meeting was given over entirely to the discussion of the radio program and other matters having to do with the state meeting. This radio program follows:

Indianapolis—11 programs:

WIRE—"Medicine at War"
Sept. 7—Lieutenant Colonel G. A. Owsley
Sept. 14—Major Edward W. Cullipher
Sept. 21—Major Bert Bullington
Sept. 28—Dr. Herman E. Hilleboe

WFBM
Sept. 16—Dr. Carl H. McCaskey
Sept. 29—Major Joseph Walther
Dr. Charles R. Bird
Dr. John Ray Newcomb

WISH
Sept. 7—Dr. Jane Ketcham
Sept. 25—"Medsoc"
Sept. 29—Commander John F. Luten
Sept. 30—Major General George F. Lull

WIBC
Sept. 29—Rear Admiral Dallas G. Sutton

State stations—series of 3 on each:

WIND, Gary
WBOW, Terre Haute
WSBT, South Bend
WLBC, Muncie
WOWO, Fort Wayne
WKMO, Kokomo
WKBV, Richmond

BUREAU OF PUBLICITY

October 15, 1943.

Present: H. G. Hamer, M.D., chairman; B. B. Moore, M.D., and T. A. Hendricks, executive secretary.

Release, "New Drugs, New Diseases," approved for publication in Wednesday papers, November 10.

The Bureau reviewed the publicity that appeared in the papers throughout the state during the annual session of the association.

Report made by the chairman that the annual report of the Bureau of Publicity, together with the supplemental report concerning the radio program, had been accepted by the House of Delegates and approved. The Bureau discussed future radio programs and approved a year's trial of these programs and the employment of Mrs. Lotys Benning Stewart as script writer and also to aid in general publicity work. Mrs. Stewart is to have a proposed outline of radio programs for the next meeting of the Bureau.

Attention of the Bureau was called to the article by J. C. Furnas in the *Saturday Evening Post* entitled, "This Cross is Blue." This is an article in regard to group hospitalization insurance and contains comments as to why there is no health insurance plan in Indiana.

Vitamin advertising by one of the large Indianapolis mercantile establishments brought to the attention of the Bureau. The Bureau referred this to the local county medical society and to the Better Business Bureau. The Bureau feels that this is only a typical example of the ridiculous and often outrageous and wholly unscientific claims concerning the benefit of vitamins, which are being published daily in the press and are being broadcast over the radio. Apparently the American public has a high saturation point for such advertising.

The stand of the state medical association against the Wagner-Murray-Dingell Bill and in favor of some form of voluntary health insurance is contained in the following excerpts of a letter which was written in answer to comments upon this subject made by an Indianapolis citizen at the time of the state meeting:

"Your comment that 'in all considerations, the primary factor should be the study of their effect on the general welfare,' is exactly the view of the medical profession of Indiana. Consideration of the patient and the public first is traditional with the members of the profession.

"In taking its stand against the socialization of medicine and the Wagner-Murray-Dingell federally-controlled, compulsory sickness insurance bill, the members of the House of Delegates of the Indiana State Medical Association acted not from personal, selfish views, but from the standpoint of the greatest good for the greatest number, as they saw it.

"In general, experience has shown that compulsory sickness insurance lowers the quality of care received by an individual, takes away the patient's right to choose his own physician, and places medical practice under the domination of a bureaucracy. In Germany, before the war, it took two and one-half government employees on the payroll for every doctor employed to administer their socialized medicine program. Studies also have shown that whenever you have a socialized medical service, the standard of care is lowered.

"Several weeks ago Robert Quillen, in the *Star*, pointed out some of the disadvantages of a federalized political medical service system, such as would come into being if the Wagner Bill were enacted in its present form.

"If you followed the newspapers during the recent session, you, of course, know that the Indiana State Medical Association is to study and recommend the 'best' voluntary medical service plan possible.

"You speak with great clarity of the dangers of maintaining the *status quo*. The one group in the country ever opposed to the *status quo* when some advancement in science is to be made has been the medical profession—as you can well see if you are familiar with the great advances in drugs and methods and procedures that have been made by the medical profession in the battle to save life, even in the last decade."

Suggestion received from a physician that the state medical association back an advertising campaign in the papers of the state. The attitude of the Bureau of Publicity to this suggestion is contained in the following paragraph from the letter written to the physician who made the suggestion:

"Your suggestion in regard to paid advertisements in the county newspapers is mighty good, and I am bringing it to the attention of the Bureau of Publicity. I don't quite see how state funds would be available for paying for advertisements in all these newspapers, but perhaps the state Bureau of Publicity might have some suggestions for campaigns that might be carried out and financed by local societies."

ABSTRACT

"DOCTORS AT WAR" TO BE RESUMED

"Arrangements have been completed with the National Broadcasting Company to resume the series of broadcasts entitled "Doctors at War," *The Journal of the American Medical Association* announces in its November 13 issue, explaining that "this will be the fourth series of broadcasts under the general title of "Doctors at Work" and will be the ninth annual series of dramatized health programs presented cooperatively by the American Medical Association and the National Broadcasting Company. Owing to radio commitments in connection with the war, the opening of the series has been postponed until January 8. Broadcasts will be given on Saturday afternoons at 5 o'clock Eastern War Time (4 o'clock Central, 3 o'clock Mountain, 2 o'clock Pacific War Time). The series will run for twenty-six weeks. The Medical Department of the United States Army and the Bureau of Medicine and Surgery of the United States Navy have agreed to permit doctors in the armed forces to participate in the programs. The medical departments of both the Army and the Navy will assist in the technical preparations for the broadcasts."

LOCAL SOCIETY REPORTS

100% IN PAYMENT OF 1944 DUES
Carroll County
Clay County
Whitley County

Bartholomew County Medical Society members held a meeting in the Chamber of Commerce Building at Columbus on October twentieth. The program consisted of a report of the meeting of the House of Delegates of the Indiana State Medical Association and a discussion of the Maternity and Child-Health Program. Thirteen members were in attendance.

Carroll County Medical Society members held a meeting at the Welcome Inn Cafe, at Delphi, on October fourteenth. Members of the Florence Nightingale Registered Nurses' Club, of Carroll County, were guests at this meeting and gave a demonstration on the Sister Kenny treatment for infantile paralysis.

Another meeting of the Carroll County Medical Society members was held on November eleventh. Dr. C. L. Wise, of Camden, spoke on "Biologicals in Communicable Diseases."

Grant County Medical Society members enjoyed two movies, "Treatment of Peptic Ulcers" and "Use of Oxygen," at a meeting held at Hotel Spencer, Marion, on October twenty-first.

Hamilton County Medical Society members were entertained at a chicken dinner at the Methodist Church, at Cicero, on October twelfth. Dr. William V. Woods, of Indianapolis, was the guest speaker.

Monroe County Medical Society members met at the Graham Hotel, Bloomington, on October twenty-seventh. Mr. Meredith, R.C.A. personnel manager, spoke on "Absenteeism." Eleven members were present at this meeting.

Miami County Medical Society members were entertained at the Bearss Hotel, Peru, on October twenty-ninth. The meeting followed a banquet, members of the Miami County Bar Association being guests of the society. A discussion by Peru attorneys concerning the proposed Wagner-Murray-Dingell Bill highlighted the program.

Fort Wayne (Allen County) Medical Society members met at the Chamber of Commerce Building, Fort Wayne, on October nineteenth. Speakers were Dr. Samuel R. Mercer and Captain A. R. Kring, of the Fort Wayne Bureau of Fire Prevention.

On October twenty-sixth another meeting was held. Dr. William C. Wright, Dr. Maurice Lohman and Dr. M. B. Catlett, who were delegates to the Indiana State Medical Association, gave a report on the state convention.

Jay County Medical Society members held their monthly meeting at Portland on October twenty-second.

Delaware-Blackford County Medical Society members held a meeting at the Ball Memorial Hospital on October twenty-sixth. Captain L. Johnson, of Billings General Hospital, Fort Benjamin Harrison, was the speaker of the evening, his subject being "Malaria." Thirty members attended this meeting.

LaPorte County Medical Society members met at the Rumley Hotel, LaPorte, on October twenty-first. Albert Vander Kloot, of Chicago, spoke on "Anemia." Sixteen members were in attendance.

Montgomery County Medical Society members met at the Culver Hospital on October twenty-first, with Dr. George S. Bond, of Indianapolis, as the guest speaker.

Randolph County Medical Society members met at the Randolph County Hospital, at Winchester, November eighth. Arvin Henderson, M.D., of Ridgeville, spoke on "The Patient and What May Be Wrong Besides the Pathological Findings." Ten members were present at the meeting.

Tippecanoe County Medical Society members met at the Lincoln Lodge, Lafayette, on November ninth. Dr. J. K. Berman, of Indianapolis, discussed "Pre- and Post-Operative Care of Patients." Thirty-three members were in attendance at the meeting.

Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club on November second. The following case reports were presented: "A Case of Diabetes Mellitus Associated with Albright's Syndrome," by Dr. Franklin Peck; "A Case of Angina Pectoris Associated with Dupuytren's Contraction," by Dr. William Dugan; "A Case of Adhesive Pericarditis," by Dr. Eugene Boggs; "A Case of Complicated Sinusitis," by Dr. John Swan, and "A Case of Complicated Cardiac Decompensation," by Dr. T. A. Hanna.

On November sixteenth a meeting was held at which Dr. David Boyd discussed "Alcoholics Anonymous."

At the November twenty-third meeting Dr. John Warvel spoke on "Differential Diagnosis of a Few Common Blood Dyscrasias," and Dr. Gordon Batman discussed "Treatment of Hypertrophic Arthritis of the Knee."

The guest speaker for the November thirtieth meeting was Dr. Robert L. Parker, of the Mayo Clinic, who spoke on "Pulmonary Hypertension."

THE SHELBY COUNTY PLAN FOR COMBATTING WAGNER-MURRAY-DINGELL BILL

WHEREAS, The Shelby County (Indiana) Medical Society feels the necessity for formulating a plan for the purpose of creating a county-wide sentiment against the enactment of legislation in furtherance of state medicine, and,

WHEREAS, It is hoped that the adoption and prosecution of some such plan by county medical societies on a national basis will result in a national sentiment against the enactment of such legislation,

BE IT THEREFORE RESOLVED, That the Shelby County (Indiana) Medical Society, through the combined efforts of its individual members, set forth the present and past services rendered to the community by the medical profession; pledge co-operation in the rendition of like services in the future; set forth reasons for desiring the handling of community health problems on a small community basis rather than on a national basis; and, promulgate a plan of procedure to enlighten the patrons of our individual members concerning the dangers incident to the enactment of legislation regarding state medicine, to the end that our Senators and Congressmen will vote against such measures, as detailed below:

1. The Shelby County (Indiana) Medical Society, among the many services rendered to the local community by its membership without thought of remuneration, has in the past:

a. Visited the various schools of the county annually in the prosecution of the immunization program for school children.
b. Given physical examinations to pre-school children.
c. Tested school children for tuberculosis.
d. Furnished the county with a civilian defense emergency medical service, ready to function in case of disaster.
e. Furnished full co-operation with the American Red Cross, even to the extent of providing heated and lighted quarters for the making of surgical dressings.
f. Furnished examiners for the local Selective Service Board, and one of its number as a member of the district Selective Service Appeal Board.
g. Have, by rotating services, furnished charitable emergency medical and surgical services at the local hospital.
h. And have, in times of depression, operated a medical clinic at the local hospital.

2. The Shelby County Medical Society stands ready, if free enterprise is maintained in the practice of medicine, to continue the rendition of such of the above services as may be necessary; and further pledges its full support and co-operation with such lay or mixed organizations as are actively interested in local health matters, so long as the determination of policy and the direction of such organizations remain vested in the membership of our Society. However, without the privilege of such policy determination and direction, the membership of the Shelby County Medical Society feels free to withhold its co-operation and support of such lay and mixed organizations as are actively interested in local health matters.

3. The Shelby County Medical Society will lend its utmost effort to provide an adequate medical service to all citizens of the county.

4. The reasons for setting forth a policy of procedure by the Shelby County Medical Society are as follows:

a. It is the belief of the Shelby County Medical Society that most problems pertaining to health matters can best be handled in the community in which they arise. The citizens of a small community can and do have a much more intimate knowledge of the facts and the means of solving such problems than do larger governmental units, such as the State.
b. It is the belief of the membership of the Shelby County Medical Society that State Medicine, particularly as outlined in Senate Bill No. 1161, would result in the same abuses, extravagant expense, political domination, inefficiency and lowering of the standards of medical practice as has resulted in such countries where State Medicine has previously been tried, and proved to be a failure.
c. It is the determination of the individual members of the Shelby County Medical Society to deal directly with the patient rather than with any other agency, to avoid seizure or control of the practice of medicine by any State, Federal or bureaucratic agency.

5. The Shelby County Medical Society hereby adopts the following plan of procedure in an effort to secure the defeat of Senate Bill No. 1161:

a. Each member of our society agrees to purchase and distribute to his patrons a copy of the pamphlet detailing arguments for the defeat of Senate Bill No. 1161, furnished by the National Physicians Committee for the Extension of Medical Service.
b. The society agrees to hold such meetings as may be necessary with representatives of the dental and legal profes-

sions and representatives of our local pharmacists and our local insurance and ministerial associations.

c. At the proper time, our society will set forth its reasons for desiring the defeat of Senate Bill No. 1161 by local newspaper advertisement.

The foregoing resolution was unanimously passed by the Shelby County (Indiana) Medical Society in regular session on November 4, 1943.

PAUL R. TINDALL, M.D., *President.*

Attest: J. D. DAVIS, M.D., *Secretary.*

THE WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

The Woman's Auxiliary Collect

We ask Thee, Oh God of Heaven and Earth, to keep us, we the helpmates of those whose life work is the ministry of healing.

May we learn to know their sacrifice is not small, but motivates their lives in service to others. Help us to have an unselfish, understanding heart.

Keep us patient and forbearing and, as it is given us to keep the hearth of our home fires swept clean of pettiness, so give us strength to be kind and generous in thought at all times.

MRS. H. A. RAY.

The Board of the Woman's Auxiliary to the Indiana State Medical Association met on November fourth at 11:00 A.M., at the Columbia Club, in Indianapolis. Mrs. James Baxter, Jr., of New Albany, state president of the Woman's Auxiliary, presided at the meeting. After the call to order and the salute to the flag, the Woman's Auxiliary Collect was read by the entire group. The secretary, Mrs. E. G. Stahl, of Lafayette, read the minutes of the pre-convention meeting, and the treasurer's report was read by Mrs. John Habermel, of New Albany.

Mrs. Baxter in her address stressed the importance of organization of county auxiliaries. She suggested that active county auxiliaries arouse interest in neighboring unorganized counties. In the event a county is having an unusual meeting, invite the members of a neighboring auxiliary as guests, she directed. Mrs. Eben Carey, national president of the Woman's Auxiliary to the American Medical Association, has suggested that monthly meetings be called, especially in the auxiliaries in which interest is lacking. Attention was called to the new committee recently formed, known as the War Participation Committee. She urged each member to do her utmost to aid the war effort and asked that auxiliaries develop war service programs. It is hoped that the members will assist with the recruitment of nurses for the Nurse Cadet Corps as a part of their program. In regard to post-war planning she said that we should interest ourselves in the programs which will affect the future of medicine.

Mrs. Baxter pointed out the importance of having county officers and chairmen correspond with the state officers. In closing, Mrs. Baxter stated that the work to be done this year would be important, and asked the support of every member because we are all dependent on each other.

Following Mrs. Baxter's talk the meeting adjourned for luncheon, which was served in the Harrison Room.

At 1:30 P.M. the meeting again was called to order by Mrs. Baxter, who introduced Mr. Thomas Hendricks, executive secretary of the Indiana State Medical Association. He pointed out some of the features of the Wagner-Murray-Dingell Bill and urged each county auxiliary to have a functioning Public Relations Committee, which can be ready at the proper time to have appropriate programs available for the public. He said that he hoped that the auxiliary members would acquaint themselves with this bill and that they would be able to discuss it intelligently. "We can not afford to be over-confident," he concluded.

After Mr. Hendricks' talk the business meeting was resumed, and reports of officers and standing chairmen were given.

The following women were elected to the Nominating Committee, which will submit the names of nominees for officers for next year: Mrs. A. H. Duemling, Fort Wayne; Mrs. M. B. VanCleave, Terre Haute; Mrs. A. W. Ratcliffe, Evansville; Mrs. Emmett B. Lamb, Indianapolis; and Mrs. William Tinney, Indianapolis.

Mrs. A. H. Duemling, Fort Wayne, was appointed as chairman of the North Central District's War Participation Committee, by Mrs. Rollo K. Packard, the national chairman.

Notice to All Auxiliaries!

Dr. Morris Fishbein will talk on the Wagner-Murray-Dingell Bill Tuesday evening, January eighteenth, at eight o'clock, at the Howard County Court House, in Kokomo. The general public is invited to this meeting, and special effort is being made to invite representatives of organized labor groups. This is a big undertaking for Howard County and we must all help them in putting this meeting across. It is being urged that all auxiliary members make an effort to go to Kokomo to hear this meeting. Take your husband and friends.

HOWARD COUNTY

The Auxiliary to the Howard County Medical Society met November 5, 1943, at a dinner meeting. Following the business meeting, reports were made on articles published in *Hygeia, The Journal of the American Medical Association, Medical Economics* and *The Journal of the Indiana State Medical Association* on the Wagner-Murray-Dingell Bill.

(Continued on page xxi)

THE JOURNAL
OF THE
Indiana State Medical Association

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

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INDEX TO VOLUME 36

January to December, Inclusive, 1943

January	—Pages 1 to 54	July	—Pages 331 to 378
February	—Pages 55 to 122	August	—Pages 379 to 424
March	—Pages 123 to 180	September	—Pages 425 to 534
April	—Pages 181 to 234	October	—Pages 535 to 576
May	—Pages 235 to 282	November	—Pages 577 to 632
June	—Pages 283 to 330	December	—Pages 633 to 736

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

Index to Volume 36, January-December, 1943

ORIGINAL ARTICLES

Air Corps', Army, New Convalescent Program (Rusk) 127
Air Forces' Convalescent-Rehabilitation Training Program, The Army (The First Year's Experience) (Rusk) 649
Allergy in Hearing Defects (Kuhn) 143
Anesthesia in Indiana, History of Organized (Romberger) 428
Anesthesiologist in the Army, The (Ratcliff) 656
Anesthetic Agents to Certain Types of Operations, Adaptability of Various (Siekerman) 72
Appendicitis, The Surgical Management of Perforative (Reed-Word-Brock) 437
Aspiration of Foreign Body, Fatal (Vomiting and Aspiration of Stomach Contents: Drowning) (Kuhn) 595
Atelectasis, The Prevention and Treatment of Postoperative Pulmonary by the Stir-Up Regimen and Tracheobronchial Toilet (Adams) 299
Aviation Personnel in the South Pacific, Rescued (Hane) 657

Blood Test Be Taken During Pregnancy?, When Should the (Mercer) 301
Blood-Plasma Bank, The Present-Day Status of Combined, With Reference to the Use of Concentrated Red Cell Suspensions (Blum) 187
Brain Injuries, Skull Fractures and (Mock) 1
Brucellosis (Urschel) 294
Brucellosis, Intradermal Vaccine Therapy in (Urschel) 385
Brucellosis, The Diagnosis of Chronic (Urschel) 59
Brucellosis with Sulfasuxidine, The Treatment of Chronic (Davis) 390

Cancer of the Uterine Cervix, Factors in the Management of (Campbell) 181
Cancer, The Modern Treatment of Prostatic, A Rational Basis for Delayed Hormone Therapy (Nesbit-Cummings) 577
Casualties with Special Reference to the Use of the Sulfonamides, Battle (Luten) 652
Civilian Defense, Emergency Medical Service of (Keller) 16
Coronary Occlusion, The Electrocardiographic Diagnosis and Treatment in Recent (Middleton) 64
Criminal, The Psychological and Sociological Background of the (Bird) 128

deKruif's Book, "Kaiser Wakes the Doctors," Anatomical Dissection of Paul (Romberger) 579
Demerol, A Report of Experiences with—A new Departure in Analgesia (Hoffman) 135
Dermatology, Allergic Aspects of (Becker) 379
Diabetes, Treatment of Uncomplicated, With Mixtures of Insulin and Protamine Zinc Insulin (Peck) 340
Doctor in the War, The American (Lull) 642

Electrocardiographic Diagnosis and Treatment in Recent Coronary Occlusion (Middleton) 64
Eye Injuries in the Home (Mann) 247
Eye Service at the Riley Hospital from 1936 through 1942, A Review of the Cases Admitted on the (Norris) 239
Eyelids, Laceration of the (Clark) 245

Fractures, Treatment of the Wound in Compound (Griswold) 55
Fractures, Skull and Brain Injuries (Mock) 1

Glomerulonephritis by Clinical Methods, The Determination of the Prognosis in (Dietz) 441

Hard of Hearing Child, Treatment and Rehabilitation of the (Leasure) 391
Headaches of Ocular Origin, Some Observations on (Stanton) 243
Health, Industrial, and the War (Peterson) 125
Hearing Defects, Allergy in (Kuhn) 143
Hygiene in War Production, Industrial (Bloomfield) 283
Hysterectomy, Vaginal: Indications and a Method (Waugh) 537

Industrial Physician, Legal Responsibilities of the (Stump) 201
Industrial Practitioner in the Industrial Medical Program, The Rights of the (Ruddell) 200
Industry, Organization of Medical Services in (Holmblad) 289
Infections of the Hand, Prevention and Treatment of (Siler) 334
Influenza and Pneumonia in Indiana (Jackson) 137
Injuries, Head, followed by Post-Concussional Syndrome (Painter) 445

Laboratory, In an Army Medical (Arbogast) 637
Lake County's Five-Year Plan and/or Lake County's All-Out Medical Plan (Waterson) 252

Medical Department Gets the Job Done, Why the (Owsley) 655
Medical Department of the Navy During the Present Emergency, Major Problems of the (Sutton) 644
Medical Problems, A Realistic Approach to Present (Rankin) 331
Medical Profession Goes to War, The (Downes) 640
Medical Services in Industry, Organization of (Holmblad) 289
Medical Service of Civilian Defense, Emergency (Keller) 16
Medicine and Pharmacy—Shoulder to Shoulder (Badanish) 22
Navy During the Present Emergency, Major Problems of the Medical Department of the (Sutton) 644

Neoarsphenamine Therapy, Fatality following (Miller) 292
Ninth Naval District Medical Services (Dollard) 425

Ophthalmology, Wartime-Patient Phases of Industrial (Alvis) 235

Parasitism in Selected Groups of Rural Residents of Indiana, Intestinal (Headlee-Hopp) 592
Pharmacy, Medicine and,—Shoulder to Shoulder (Badanish) 22
Physicians in the Services and in Civilian Life: Present Status (Lahey) 638
Physician, Legal Responsibilities of the Industrial (Stump) 201
Pick's Syndrome (Sandorf) 205
Pneumonia in Indiana, Influenza and (Jackson) 137
Practitioner in the Industrial Medical Program, The Rights of the Industrial (Ruddell) 200
President's Address (McCaskey) 535

Rheumatism, Report of a Case of Palindromic (Ferry) 348
Rehabilitation Training Program, The Army Air Forces' Convalescent (Rusk) 649
Riley Hospital from 1936 through 1942, A Review of the Cases Admitted on the Eye Service at the (Norris) 239

Scarlet Fever in Indiana, Control of (Jackson) 544
Sclerosis, The Ocular Manifestations of Multiple (Larkin) 26
Shock in Dogs, Production of, Experimental by the Use of Venous Tourniquets (Scott-Robbins) 194

Skull Fractures and Brain Injuries (Mock) 1
Sulfanilamide, Absorption of, from Burned Surfaces (Welborn) 447
Sulfonamides, The (Yonkman) 394
Sulfonamide Drugs in Sinus Surgery, Undiluted (Littell) 250
Sulfonamides, Toxic Reactions to the (Ferry) 69
Surgery, Wartime Industrial (Forster) 11
Syndrome, Pick's (Sandorf) 205
Syphilis Control in Industry (Vonachen) 302

Tuberculosis, Changing Concepts of (Custer) 75
Tuberculosis in Industry, Control of (Kammer) 541
Tumor, An Unusual Intranasal (Ellis) 147
Typhoid Fever Immunization, Mass, Intradermal Method (Kamp) 584

War Participation, Effective (Donaldson) 123
War Problems Faced by the Medical Profession (Kretschmer) 633
Women in Industry, The Problems of (Kronenberg) 586
Wound, Treatment of, in Compound Fractures 55

EDITORIALS

Addict Menace, The 661
Advice, Wholesome 260
Aftermath, Some of the 661
Appreciation, An 259
Artists, The "Gimme" 305

Base Hospital No. 32 208

Cancer Program, The 206
Carver, Walter F. 305
Children, War 402
Columnist Shows Interest, A 403
Conference, Indiana's Industrial Health 207
Conference, The Secretaries' 149
Conservation of Vision 258
Council, Your 78
Cregor, Doctors Eastman, and Mettel 30
Crile, George W. 78

Dislocations in Wartime 80
Doctor, Again the Country 353
Doctors and Rationing 351

Eastman, Mettel, and Cregor, Doctors 30
Editorial Notes 33, 82, 152, 209, 261, 308, 355, 404, 513, 553, 600

Enlistments, Medical 259
Exhaustion, "Overtime" 552

Facts in the Case, The Plain 510
Fever, Undulant 354
4-H, The, An Appreciation 552
Freshman Year in Medicine, The 32

General Assembly—The 1943 Model 207
Guest of the Medical Center, Typhus Authority is 79

Hospital Problems, Public 151

Industrial Health Conference, Indiana's 207
Industrial Medicine, Wartime 79
Investments, Your 81

Job, Still Another 598

"Kickbacks" 402

Letters from Home 260

McCormack, Arthur T. 509
Medical Corps, The Army 149
Medical "E" Men 150
Medical Enlistments 259
Medical Fads 258
Medical Leadership 660
Medical Needs, Future 599
Medicine, The Freshman Year in 32
"Medsoc" 599
Mettel, Doctors Eastman and Cregor 30

New Year, A Happy 30
Ninth Naval District Session, The 596

Oberlin Award, The 31
"Overtime" Exhaustion 552

Paper Collars 403
Philosophy of Youth, Wartime 81
Physician, Heal Thyself! 551
Postwar Battles 511
President, Our 550
Presidents Real Leaders, A.M.A. 351
Public Relations, A.M.A. and 352
Publicity Will Not Down 663

Sailor! Hi, 509
Scrap 306
Secretaries' Conference, The 149
Supreme Court Decision, The 78

Then and Now 208
They May Mean Something! 550
Tomato Industry, The 662
Typhus Authority is Guest of the Medical Center 79

"Uncle Jeff," The Passing of 208
Undulant Fever 354

Vision, Conservation of 258

Wagner-Murray-Dingell Bill 510
War Bond Purchases 33
War Bonds 152
War Bonds and Rationing 307
Wartime Industrial Medicine 79
Water Supply in Indiana, The 598
Women in Industry—A Problem 307

Years, The Changing 31

AUTHORS

Adams, William B., Muncie (The Prevention and Treatment of Postoperative Pulmonary Atelectasis by the Stir-up Regimen and Tracheobronchial Toilet) 299
Alvis, E. O., Indianapolis (Wartime-Patient Phases of Industrial Ophthalmology) 235
Arbogast, John L., A.P.O. 181, Los Angeles, California (La Fayette) (In an Army Medical Laboratory) 637

Badanish, Stephen, Gary (Medicine and Pharmacy—Shoulder to Shoulder) 22
Becker, S. William, Chicago, Ill. (Allergic Aspects of Dermatology) 379
Bird, Charles R., Indianapolis (The Psychological and Sociological Background of the Criminal) 128
Bloomfield, J. J., Bethesda, Maryland (Industrial Hygiene in War Production) 283
Blum, Leon L., Terre Haute (The Present-Day Status of Combined Blood-Plasma Bank, With Reference to the Use of Concentrated Red Cell Suspensions) 187
Booher, N. R., Fort Benjamin Harrison (Civilian Physicians and the Soldier) 161
Brock, Clayton E.; Reed, William C., and Word, Buford, Camp Shelby, Miss. (The Surgical Management of Perforative Appendicitis) 437

Campbell, John A., Indianapolis (Factors in the Management of Cancer of the Uterine Cervix) 181
Clark, C. P., Indianapolis (Laceration of the Eyelids) 245
Culbertson, C. G., Indianapolis (The Red Cross Blood Donor Service) 556
Cummings, Robert H., and Nesbit, Reed M., Ann Arbor, Mich. (The Modern Treatment of Prostatic Cancer—A Rational Basis for Delayed Hormone Therapy) 577
Custer, Edward W., South Bend (Changing Concepts of Tuberculosis) 75

Davis, Neal, Lowell (The Treatment of Chronic Brucellosis with Sulfasuxidine) 390
Day, John T., Indianapolis (The Urgent Need of a Cancer Control Program) 213
Dietz, Paul C., Muncie (The Determination of the Prognosis in Glomerulonephritis by Clinical Methods) 441
Dollard, H. L., Great Lakes, Ill. (Ninth Naval District Medical Services) 425
Donaldson, Walter F., Pittsburgh, Pa. (Effective War Participation) 123
Downes, John, Great Lakes, Illinois (The Medical Profession Goes to War) 640
Drinker, Philip, Boston, Massachusetts (The United States Navy-Maritime Commission Safety and Industrial Health Program in Contract Shipyards) 667

Ellis, Bert E., Indianapolis (An Unusual Intranasal Tumor) 147

Ferree, John W., Grosse Isle, Mich. (How the Navy Cares for Its Wounded Heroes) 670
Ferry, John L., Whiting:
(Toxic Reactions to the Sulfonamides) 69
(Report of a Case of Palindromic Rheumatism) 348
Forster, N. K., Hammond (Wartime Industrial Surgery) 11
French, Mrs. G. D., Indianapolis (Nurses Needed in the Armed Forces) 311

Griswold, R. Arnold, Louisville, Ky. (Treatment of the Wound in Compound Fractures) 55

Hamer, Homer G., Indianapolis (A.M.A. Delegates Create Public Relations Council at Chicago Meeting, June 7-9) 359
Hane, Richard L., Fleet Postoffice, San Francisco, California (Fort Wayne) (Rescued Aviation Personnel in the South Pacific) 657
Headlee, William Hugh, and Hopp, William B., Indianapolis (Intestinal Parasitism in Selected Groups of Rural Residents of Indiana) 592
Hoffman, Robert, South Bend:
(A Report of Experiences with Demerol—A New Departure in Analgesia) 135
("The Bestest the Cheapest") 520
Holmblad, Edward C., Chicago, Ill. (Organization of Medical Services in Industry) 289
Hopp, William B., and Headlee, William Hugh, Indianapolis (Intestinal Parasitism in Selected Groups of Rural Residents of Indiana) 592

Jackson, J. W., Indianapolis:
(Control of Scarlet Fever in Indiana) 544
(Influenza and Pneumonia in Indiana) 137
Jewett, Robert E., Indianapolis:
(Maternity and Infant Care for Families of Men in Armed Forces) 413
(Maternity and Infant Care for Wives and Infants of Men in Military Service) 316

Kammer, A. G., East Chicago, Ill. (Control of Tuberculosis in Industry) 541
Kamp, Maurice, New Albany (Mass Typhoid Fever Immunization—Intradermal Method) 584
Keller, William S., Cleveland, Ohio (Emergency Medical Service of Civilian Defense) 16
Kettler, Jean R., Indianapolis (A Resumé of the Eye Treatment Program as Sponsored by the Indiana State Department of Public Welfare) 265
Kretschmer, Herman L., Chicago (War Problems Faced by the Medical Profession) 633
Kronenberg, M. H., Chicago, Ill. (The Problems of Women in Industry) 586
Kuhn, Hugh A., Hammond:
(Allergy in Hearing Defects) 143
(Fatal Aspiration of Foreign Body—Vomiting and Aspiration of Stomach Contents: Drowning) 595

Lahey, Frank H., Boston (Physicians in the Services and in Civilian Life: Present Status) 638
Larkin, Bernard J., Indianapolis (The Ocular Manifestations of Multiple Sclerosis) 26
Leasure, J. Kent, Indianapolis (Treatment and Rehabilitation of the Hard of Hearing Child) 391
Lewis, Mrs. Olive Beldon, Indianapolis (Women's Field Army for the Control of Cancer) 215
Littell, J. Jerome, Indianapolis (Undiluted Sulfonamide Drugs in Sinus Surgery) 250
Lull, George F., Washington, D. C. (The American Doctor in the War) 642
Luten, John F., Great Lakes, Illinois (Battle Casualties with Special Reference to the Use of the Sulfonamides) 652

Mann, Mortimer, Indianapolis (Eye Injuries in the Home) 247
McCaskey, Carl H., Indianapolis (President's Address) 535
McCown, Albert, Washington, D. C. (Red Cross Activities and Medicine) 157
Mercer, S. R., Fort Wayne (When Should the Blood Test Be Taken during Pregnancy?) 301
Middleton, Harvey N., Indianapolis (The Electrocardiographic Diagnosis and Treatment in Recent Coronary Occlusion) 64
Miller, Minor, Evansville (Fatality following Neoarsphenamine Therapy) 292
Mock, Harry E., Chicago, Ill. (Skull Fractures and Brain Injuries) 1
Montgomery, L. G., Muncie (Choosing Laboratory Tests) 40

Nesbit, Reed M., and Cummings, Robert H., Ann Arbor, Mich. (The Modern Treatment of Prostatic Cancer—A Rational Basis for Delayed Hormone Therapy) 577
Newcomb, John Ray, Indianapolis (One in One Hundred and Twelve) 159
Norris, Mary Alice, Indianapolis (A Review of the Cases Admitted on the Eye Service at the Riley Hospital from 1936 through 1942) 239

Owsley, Guy A., Fort Benjamin Harrison (Hartford City) (Why the Medical Department Gets the Job Done) 655

Painter, Lowell W., Winchester (Head Injuries followed by Post-Concussional Syndrome) 445
Peck, Franklin B., Indianapolis (Treatment of Uncomplicated Diabetes with Mixtures of Insulin and Protamine Zinc Insulin) 340
Peterson, C. M., Chicago, Ill. (Industrial Health and the War) 125
Pfaff, Dudley A., Indianapolis (Service with Troop Carrier Command) 671

Rankin, Fred W., Washington, D. C. (A Realistic Approach to Present Medical Problems) 331
Ratcliff, Frank W., New Orleans, Louisiana (La Fayette) (The Anesthesiologist in the Army) 656
Reed, William C.; Word, Buford, and Brock, Clayton E., Camp Shelby, Miss. (The Surgical Management of Perforative Appendicitis) 437
Rice, Thurman B., Indianapolis:
(Food Intoxications and Infections) 409
(Maternity and Infant Care for Wives and Infants of Men in Military Service) 316
Robbins, E. Brown, and Scott, Charles C., Indianapolis (Production of Experimental Shock in Dogs by the Use of Venous Tourniquets) 194
Romberger, Floyd T., Lafayette:
(History of Organized Anesthesia in Indiana) 428
(Anatomical Dissection of Paul deKruif's Book "Kaiser Wakes the Doctors") 579
Ruddell, Karl R., Indianapolis (The Rights of the Industrial Practitioner in the Industrial Medical Program) 200

Rusk, Howard A., Jefferson Barracks, Mo. (Army Air Corps' New Convalescent Program) 127
Rusk, Howard A., Washington, D. C. (The Army Air Forces' Convalescent-Rehabilitation Training Program (The First Year's Experience) 649

Sandorf, Marvin, Indianapolis (Pick's Syndrome) 205
Scott, Charles C., and Robbins, E. Brown, Indianapolis (Production of Experimental Shock in Dogs by the Use of Venous Tourniquets) 194
Sheppard, Virgil, Indianapolis (Results of Blood Donor Questionnaire) 558
Siekerman, Clairmont W., Indianapolis (Adaptability of Various Anesthetic Agents to Certain Types of Operations) 72
Siler, Vinton E., Cincinnati, Ohio (Prevention and Treatment of Infections of the Hand) 334
Smith, Will H., Indianapolis:
(Federal Income Tax Returns) 96
(Physicians to File Declaration of Estimated Income Tax before September 15, 1943) 413
Spolyar, Louis W., Indianapolis (Epidemic Keratoconjunctivitis) 88
Stanton, Harmon L., Evansville (Some Observations on Headaches of Ocular Origin) 243
Strickland, James D., Indianapolis (Physician's Part in Food Rationing) 164
Stump, Albert, Indianapolis:
(Legal Responsibilities of the Industrial Physician) 201
(On the Removal of a Dead Boby from the Hospital) 37
(The Victory Tax) 163
Sutton, Dallas G., Washington, D. C. (Major Problems of the Medical Department of the Navy During the Present Emergency) 644

Urschel, Dan L., Mentone:
(Brucellosis) 294
(The Diagnosis of Chronic Brucellosis) 59
(Intradermal Vaccine Therapy in Brucellosis) 385

Vonachen, H. A., Peoria, Ill. (Syphilis Control in Industry) 302

Waterson, Rollen, Gary (Lake County's Five-Year Plan and/or Lake County's All-Out Medical Plan) 252
Waugh, John M., Rochester, Minn. (Vaginal Hysterectomy: Indications and a Method) 537
Welborn, Mell B., Evansville (Absorption of Sulfanilamide from Burned Surfaces) 447
Williams, George T., Crawfordsville (Pioneer Physicians and Surgeons of Montgomery County, Indiana) 268, 517, 608
Word, Buford; Reed, William C., and Brock, Clayton E., Camp Shelby, Miss. (The Surgical Management of Perforative Appendicitis) 437

Youkman, Frederick F., Detroit, Mich. (The Sulfonamides) 394

SPECIAL ARTICLES

Anti-Malaria Brigade 365

Base Hospital No. 32, Members of Staff of 223
Bestest the Cheapest," "The (Hoffman) 520
Blood Donor Questionnaire, Results of (Sheppard) 558
Body, On the Removal of a Dead, from the Hospital (Stump) 37

Cancer Control Program, The Urgent Need of a (Day) 213
Cancer, Women's Field Army for the Control of (Lewis) 215
Care for Needy Wives and Children of Service Men, Medical Profession Pledges 318
Conference, Indiana's Industrial Health 90
Conference, Secretaries' 38
Cregor, Frank W., M.D., In Memoriam to 86

Diets and Food Rationing, Invalid 222

Educational Program in Industrial Health, Indiana's Emergency 92
Eye Treatment Program as Sponsored by the Indiana State Department of Public Welfare, A Resumé of the (Kettler) 265

Food Intoxications and Infections (Rice) 409
Food Rationing, Invalid Diets and 222
Food Rationing, Physician's Part in (Strickland) 164

Gross Income Tax Status of Military Personnel 270, 318

Income Tax before September 15, 1943, Physicians to File Declaration of Estimated (Smith) 413
Income Tax Returns, Federal (Smith) 96
Industrial Health Conference, Indiana's 90
Industrial Health, Indiana's Emergency Educational Program 92
Instructional Courses at Annual Session of the Indiana State Medical Association 363

Keratoconjunctivitis, Epidemic (Spolyar) 88

Laboratory Tests, Choosing (Montgomery) 40
Legislative Report, Final 218

Maritime Commission Safety and Industrial Health Program in Contract Shipyards, The United States Navy (Drinker) 646
Maternity and Infant Care for Families of Men in Armed Forces (Jewett) 413
Maternity and Infant Care for Wives and Infants of Men in Military Service (Rice-Jewett) 316
Medical Services for Families of Servicemen—Fee Schedule Prepared by the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health 361
Medicine Today 89, 165, 221, 320, 522, 612
Medicine, Voice of 98, 523
Membership Roster for 1943 673

Navy Cares for Its Wounded Heroes, How the (Ferree) 670
Navy, Indiana Salutes the 454
Nurses Needed in the Armed Forces (French) 311

One in One Hundred and Twelve (Newcomb) 159

Physicians to File Declaration of Estimated Income Tax Before September 15, 1943 (Smith) 413
Physicians, Indiana, In Military Service 275
Physicians and the Soldier, Civilian (Booher) 161
Physician's Part in Food Rationing (Strickland) 164
Pioneer Physicians and Surgeons of Montgomery County, Indiana (Williams) 268, 517, 608
President's Page (McCaskey) 36, 85, 156, 212, 264, 310, 358, 408, 516, 555, 607
Procurement and Assignment Service Bulletins 270
Public Relations Council at Chicago Meeting, A.M.A. Delegates Create (Hamer) 359
Public Relations Council Starts Work, A.M.A. 668

Ration Points for Special Diets, Extra 312
Red Cross Activities and Medicine (McCown) 157
Red Cross Blood Donor Service, The (Culbertson) 556
Removal of a Dead Body from the Hospital, On the (Stump) 37
Richards Serves Public Well, Representative 95

Secretaries' Conference 38

Troop Carrier Command, Service with (Pfaff) 671

Under the Capitol Dome:
Crime Council Discusses Current Needs 43
State Board Modifies Regulations 98
Study of Institutional Admissions 166
State Board Meets 217
Dangers of Home Canning 217
Board Revokes License 278
Licenses Granted 278
Orchestra Effective as Therapeutic Aid for Mental Patients 364
Wartime Automobile Driving Less Dangerous 521
State Board Examination 521
Two Licenses are Revoked 521
Increase in Mental Cases in Ward at Indianapolis City Hospital 613
State Medical Board Action 614

Victory Tax, The (Stump) 163
Voice of Medicine 98, 523

Women's Field Army for the Control of Cancer (Lewis) 215

DEATHS

Arburn, Charles, Wadesville 51
Arthur, Martin Luther, Patoka 688

*Badertscher, Robert Carl, Bloomington 615
Barnett, Daniel E., Homer 51
Barnhill, John F., Miami Beach, Florida 227
Best, Sylvester Robert, Gary 227
Bowman, Ray A., Elkhart 365
Brockway, Charles J., Brookston 175
Burkhardt, Arthur E., Tipton 688
Burkley, Howard W., Jonesville 565

Campbell, Daniel A., Boonville 615
Caraway, Samuel H., Indianapolis 99
Carver, Walter F., Albion 323
Casey, Ott, Clinton 99
Conner, William H., Fort Wayne 227
Cottingham, Isham E., Evansville 419
Cox, H. Monford, Indianapolis 688
Crawford, Edward F. W., LaPorte 227
Cregor, Frank W., Indianapolis 50

Dean, Daniel, Hardinsburg 688
Dwyer, Robert, Indianapolis 51

Eastman, Joseph Rilus, Indianapolis 50
Edwards, Lewis H., Monroeville 280
Eikenberry, B. Franklin, Peru 688

Fitzpatrick, Bartholomew, Columbus 419
Frost, Reuben F., Huntington 688

Garrigus, John O., Terre Haute 280
Geisler, George J., South Bend 99
Goldman, James M., Monroe City and Vincennes 99
Gugsell, Andrew F., Ferdinand 528
Gumbiner, Benjamin F., Gary 528

Hammond, Guido B., English 419
Harpole, Charles B., Evansville 175
Hatfield, James Francis, Rossville 565
Henderson, Samuel T., Fort Wayne 365
Hessler, Robert, Indianapolis 99
Hill, Frank E., Muncie 528
Hoy, Clifford R., Syracuse 51
Hubbard, Henley H., Boswell 419

Johnson, Leonidas B., Ireland 688

Katterhenry, Edward H., Indianapolis 528
Keller, Amelia R., Indianapolis 175
Kern, Frank W., Seymour 688
King, Edward F., Anderson 280
*Klee, Kurt B., Indianapolis 615

Klingler, Martin E., Garrett 419
Knapp, Henry C., Huntingburg 51

Laval, Edward J., Evansville 365
Laymon, Henry E., Warren 419
Lee, John H., Cannelton 688
Leslie, Gaylard M., Fort Wayne 323
Leuthart, Charles P., New Albany 528
Light, Mason B., Indianapolis 99
Loy, Ed N., Rensselaer 51
Luckett, Charles D., English 280

MacBeth, Bertha G., Fort Wayne 99
McCracken, Henry M., Argos 615
McKane, Harvey W., Columbus 175
McWilliams, Oscar E., Anderson 175
Markley, Stephen C., Richmond 565
Merritt, Frank W., Gary 528
Metcalf, Henry P., Rushville 99
Mettel, Howard B., St. Louis 51

Paul, Joseph O., New Castle 615
Paynter, Horace M., Salem 528

Rees, Omar H., Knightstown 688
Reser, William M., Lafayette 280
Rock, George, Auburn 280
Rowland, Calvin L., Westpoint 419
Ruddell, Benson, Frankfort 51

Schafer, Donald W., Fort Wayne 323
Sellman, John P., Washington 565
Shaff, Dewitt C., Clinton 615
Southwick, Archibald A., Kendallville 688
Squier, William Cullen, Richmond 565
Steele, Howard F., Claypool 323
Stephens, Olen C., Evansville 615
Stoner, Gerald Hayden, Valparaiso 688
Stults, Joseph E., Fort Wayne 323

Thornburgh, Frank L. Middletown 365
Thralls, Charles U., Hymera 528
Tindall, William W., Shelbyville 419

Van Dament, Walter T., Bloomington 365

White, James M., Gary 528
Wilson, Arthur H., Indianapolis 528
Wrork, John H., Shelburn 51
Young, James B., Indianapolis 227

** Died in military service.*

BOOKS

(Acknowledged and Reviewed)

AUTHORS

Adkins, Margaret M.; Miller, R. Bretney; Cobb, Elizabeth A., and Sanford, R. Nevitt (Physique, Personality and Scholarship) Dec. xxiii
Amberson, J. Burns; Dick, George F.; Minot, George R.; Castle, William B.; Stroud, William D., and Eusterman, George B. (The 1942 Year Book of General Medicine) Feb. xix
American Medical Association (A.M.A. Council on Pharmacy and Chemistry Reports for 1941) Feb. xx
American Medical Association (Reports of the Council on Pharmacy and Chemistry) Sept. 534
American Medical Association (Food Charts: Foods as Sources of the Dietary Essentials) Feb. xx
American Medical Association (New and Nonofficial Remedies, 1942) Feb. xxi
American Medical Association (New and Nonofficial Remedies, 1943) Sept. 534
American Pharmaceutical Association (The National Formulary) (Seventh Edition) Feb. xx
Anderson, W. A. D. (Synopsis of Pathology) June xxii

Banks, Sam W., and Compere, Edward L. (Pictorial Handbook of Fracture Treatment) Sept. 533

Barr, E. Osmun (Flying Men and Medicine)____June xxii
Boas, Ernst P. (Treatment of the Patient Past Fifty) _____Aug. xxii
Bunch, C. C. (Clinical Audiometry)_____Dec. xxiii

Carlson, Hjalmar E., and Ockerblad, Nelse F. (Urology in General Practice)_____Aug. xxii
Castle, William B.; Dick, George F.; Amberson, J. Burns; Minot, George R.; Stroud, William D.; Eusterman, George B. (The 1942 Year Book of General Medicine) _____Feb. xix
Catchpole, Hubert R.; Greulich, William Walter; Dorfman, Ralph I.; Solomon, Charles I., and Culotta, Charles S. (Somatic and Endocrine Studies of Puberal and Adolescent Boys)_____July xxii
Christian, Henry A. (The Principles and Practice of Medicine) (Fourteenth Edition)_____Feb. xix
Clendening, Logan, and Hashinger, Edward H. (Methods of Treatment) (Eighth Edition)___Aug. xxii
Cobb, Elizabeth A.; Sanford, R. Nevitt; Adkins, Margaret M., and Miller, R. Bretney (Physique, Personality and Scholarship)_____Dec. xxiii
Colwell Publishing Co. (The 1944 Daily Log for Physicians) _____Nov. 632
Compere, Edward L., and Banks, Sam W. (Pictorial Handbook of Fracture Treatment)_____Sept. 533
Cooke, Willard R. (Essentials of Gynecology)___Mar. xxi
Culotta, Charles S.; Greulich, William Walter; Dorfman, Ralph I.; Catchpole, Hubert R., and Solomon, Charles I. (Somatic and Endocrine Studies of Puberal and Adolescent Boys)_____July xxii
Curtis, Donald A., and Wooders, Marie A. (Emergency Care) _____June xxiii

Davison, Wilburt C. (The Compleat Pediatrician) Dec. xxiii

Dick, George F.; Amberson, J. Burns; Minot, George R.; Castle, William B.; Stroud, William D.; and Eusterman, George B. (The 1942 Year Book of General Medicine) _____Feb. xix
Doe, Janet (A Handbook of Medical Library Practice) _____Sept. 533
Doherty, William Brown, and Runes, Dagobert D. Rehabilitation of the War Injured)_____Aug. xxii
Dorfman, Ralph I.; Greulich, William Walter; Catchpole, Hubert R.; Solomon, Charles I., and Culotta, Charles S. (Somatic and Endocrine Studies of Puberal and Adolescent Boys)_____July xxii

Eusterman, George B.; Dick, George F.; Amberson, J. Burns; Minot, George R.; Castle, William B., and Stroud, William D. (The 1942 Year Book of General Medicine) _____Feb. xix

Fetterman, Joseph L. (The Mind of the Injured Man) _____Dec. xxiii

Gerling, C. J. (The Sight Saver)_____Mar. xxi
Greulich, William Walter; Dorfman, Ralph I.; Catchpole, Hubert R.; Solomon, Charles I., and Culotta, Charles S. (Somatic and Endocrine Studies of Puberal and Adolescent Boys)_____July xxii

Hamilton, Samuel W., and Stern, Edith M. (Mental Illness: A Guide for the Family)_____Feb. xix
Hashinger, Edward H., and Clendening, Logan (Methods of Treatment) (Eighth Edition)___Aug. xxii
Herrold, Russell D. (Chemotherapy of Gonococcic Infections) _____June xxii
Hooker, Sanford B., and Karsner, Howard T. (The 1941 Year Book of Pathology and Immunology) _____July xxii
Hopper, Mary E., and Lewis, George M. (An Introduction to Medical Mycology)_____Dec. xxiii
Howles, James Kirby (A Synopsis of Clinical Syphilis) _____Aug. xxii

Jeans, P. C., and Marriott, Williams McKim (Infant Nutrition) _____Feb. xx

Johnston, Phillip W. (The Relation of Certain Anomalies of Vision and Lateral Dominance to Reading Disability) _____Mar. xxi

Karsner, Howard T., and Hooker, Sanford B. (The 1941 Year Book of Pathology and Immunology) _____July xxii
Kenny, Sister Elizabeth, and Pohl, John F. (The Kenny Concept of Infantile Paralysis and Its Treatment) _____May xxiii
Kolachov, Paul J., and Willkie, Herman F. (Food for Thought) _____Feb. xix

Lerrigo, Marion Olive (Children Can Help Themselves) _____July xxii
Lewis, George M., and Hopper, Mary E. (An Introduction to Medical Mycology)_____Dec. xxiii
Lichtwitz, Leopold (Functional Pathology)_____June xxii

Marriott, Williams McKim, and Jeans, P. C. (Infant Nutrition) _____Feb. xx
Miller, R. Bretney; Cobb, Elizabeth A.; Sanford, R. Nevitt, and Adkins, Margaret M. (Physique, Personality and Scholarship)_____Dec. xxiii
Minot, George R.; Dick, George F.; Amberson, J. Burns; Castle, William B.; Stroud, William D., and Eusterman, George B. (The 1942 Year Book of General Medicine) _____Feb. xix

New York Academy of Medicine (A Venture in Public Health Integration)_____Feb. xix
New York Academy of Medicine (The March of Medicine _____May xxiii
Nolan, Jeannette Covert (Hoosier City)_____Dec. xxiii

Ockerblad, Nelse F., and Carlson, Hjalmar E. (Urology in General Practice)_____Aug. xxii

Page, Irvine H. (Hypertension)_____Dec. xxiii
Painter, Charles F. (The 1942 Year Book of Industrial and Orthopedic Surgery)_____Feb. xix
Pohl, John F., and Kenny, Sister Elizabeth (The Kenny Concept of Infantile Paralysis and Its Treatment) _____May xxiii

Ray, Marie Beynon (Doctors of the Mind)_____June xxiii
Regan, Louis J. (Medical Malpractice)_____Aug. xxii
Runes, Dagobert D., and Doherty, William Brown (Rehabilitation of the War Injured)_____Aug. xxii

Sanford, R. Nevitt; Adkins, Margaret M.; Miller, R. Bretney, and Cobb, Elizabeth A. (Physique, Personality and Scholarship)_____Dec. xxiii
Solomon, Charles I.; Greulich, William Walter; Dorfman, Ralph I.; Catchpole, Hubert R., and Culotta, Charles S. (Somatic and Endocrine Studies of Puberal and Adolescent Boys)_____July xxii
Stern, Edith M., and Hamilton, Samuel W. (Mental Illness: A Guide for the Family)_____Feb. xix
Strecker, Edward A. (Fundamentals of Psychiatry) _____Feb. xix
Stroud, William D.; Dick, George F.; Amberson, J. Burns; Minot, George R.; Castle, William B., and Eusterman, George B. (The 1942 Year Book of General Medicine) _____Feb. xix

Taylor, F. Sherwood (The Conquest of Bacteria)_Sept. 533
Thewlis, Malford W. (The Care of the Aged)___Aug. xxii
Titus, Paul (Atlas of Obstetric Technic)_____July xxii
Trueta, J. (The Principles and Practice of War Surgery) _____June xxii

United States Pharmacopoeial Convention (Pharmacopoeia of the United States of America, The) (Twelfth Revision) (U.S.P. XII)_____May xxiii

Willkie, Herman F., and Kolachov, Paul J. (Food for Thought) _____Feb. xix
Wooders, Marie A., and Curtis, Donald A. (Emergency Care) _____June xxiii

SUBJECTS

(r—book reviewed)

Aged, The Care of the (Geriatrics) Fourth Edition (Thewlis), The C. V. Mosby Company (r)---Aug. xxii
A.M.A. Council on Pharmacy and Chemistry Reports for 1941 (American Medical Association) (r)--Feb. xx
Anomalies of Vision and Lateral Dominance to Reading Disability, The Relation of Certain (Johnston), Society for Research in Child Development, National Research Council, Washington, D.C. ----------Mar. xxi
Audiometry, Clinical (Bunch), C. V. Mosby Co.--Dec. xxiii

Bacteria, The Conquest of (Taylor), The Philosophical Library and Alliance Book Corporation (r) ----------Sept. 533
Children Can Help Themselves (Lerrigo), The Macmillan Co. ----------July xxii
Chemotherapy of Gonococcic Infections (Herrold), The C. V. Mosby Co.----------June xxii
Council on Pharmacy and Chemistry, Reports of the (American Medical Association) (r)--------Sept. 534
Council on Pharmacy and Chemistry Reports for 1941, A.M.A. (American Medical Association) (r) ----------Feb. xx

Emergency Care (Wooders-Curtis), F. A. Davis Co. (r) ----------June xxiii
Endocrine Studies of Puberal and Adolescent Boys, Somatic and (Greulich-Dorfman-Catchpole-Solomon-Culotta), Society for Research in Child Development, National Research Council, Washington, D.C. ----------July xxii

Flying Men and Medicine (Barr), Funk & Wagnalls Co. ----------June xxii
Food Charts: Foods as Sources of the Dietary Essentials (American Medical Association) (r)-----Feb. xx
Food for Thought (Willkie-Kolachov), Indiana Farm Bureau, Inc. ----------Feb. xix
Formulary, The National (Seventh Edition), (Prepared by the Committee on National Formulary, American Pharmaceutical Association) (r)---Feb. xx
Fracture Treatment, Pictorial Handbook of (Compere-Banks), The Year Book Publishers, Inc.--Sept. 533

Gonococcic Infections, Chemotherapy of (Herrold), The C. V. Mosby Co.----------June xxii
Gynecology, Essentials of (Cooke), J. B. Lippincott Co. ----------Mar. xxi

Handbook of Fracture Treatment, Pictorial (Compere-Banks), The Year Book Publishers, Inc.--Sept. 533
Handbook of Medical Library Practice, A (Doe), American Library Association (r)----------Sept. 533
Hoosier City (Nolan), Julian Messner---------Dec. xxiii
Hypertension (Page), Charles C. Thomas------Dec. xxiii

Injured, Rehabilitation of the War (Doherty-Runes), Philosophical Library ----------Aug. xxii
Immunology, The 1941 Year Book of Pathology and (Karsner-Hooker), The Year Book Publishers, Inc. (r) ----------July xxii
Industrial and Orthopedic Surgery, The 1942 Year Book of (Painter), The Year Book Publishers, Inc. ----------Feb. xix
Infant Nutrition (Third Edition) (Marriott-Jeans), The C. V. Mosby Co. (r)----------Feb. xx

Kenny Concept of Infantile Paralysis and Its Treatment, The (Pohl-Kenny), Bruce Publishing Co. ----------May xxiii

Library Practice, A Handbook of Medical (Doe), American Library Association (r)----------Sept. 533
Log for Physicians, The 1944 Daily (Colwell Publishing Co., Champaign, Ill.)----------Nov. 632

Medicine, Flying Men and (Barr), Funk & Wagnalls Co. ----------June xxii
Malpractice, Medical (Regan), The C. V. Mosby Co. ----------Aug. xxii

March of Medicine, The (New York Academy of Medicine Lectures to the Laity), Columbia University Press ----------May xxiii
Medicine, The March of (New York Academy of Medicine Lectures to the Laity), Columbia University Press ----------May xxiii
Medicine, The Principles and Practice of (Fourteenth Edition) (Christian), D. Appleton-Century Company, Inc. ----------Feb. xix
Medicine, The 1942 Year Book of General (Dick-Amberson-Minot-Castle-Stroud and Eusterman), The Year Book Publishers, Inc.----------Feb. xix
Mental Illness: A Guide for the Family (Stern-Hamilton), The Commonwealth Fund---------Feb. xix
Mind, Doctors of the (Ray), Little, Brown & Company (r) ----------June xxiii
Mind of the Injured Man, The (Fetterman), Industrial Medicine Book Co.----------Dec. xxiii
Mycology, An Introduction to Medical (Lewis-Hopper), The Year Book Publishers, Inc.---------Dec. xxiii

National Formulary, The (Seventh Edition), (Prepared by the Committee on National Formulary, American Pharmaceutical Association) (r)----Feb. xx
New and Nonofficial Remedies, 1942 (American Medical Association) (r)----------Feb. xxi
New and Nonofficial Remedies, 1943 (American Medical Association) (r)----------Sept. 534
Nutrition, Infant (Third Edition) (Marriott-Jeans), The C. V. Mosby Co. (r)----------Feb. xx

Obstetric Technic, Atlas of (Titus), The C. V. Mosby Co. ----------July xxii
Orthopedic Surgery, The 1942 Year Book of Industrial and (Painter), The Year Book Publishers, Inc. ----------Feb. xix

Pathology, Functional (Lichtwitz), Grune & Stratton, Inc. (r) ----------June xxii
Pathology, Synopsis of (Anderson), The C. V. Mosby Co. (r) ----------June xxii
Pathology and Immunology, The 1941 Year Book of (Karsner-Hooker), The Year Book Publishers, Inc. (r) ----------July xxii
Pediatrician, The Compleat (Davison), Sceman Printery for Duke University Press----------Dec. xxiii
Personality and Scholarship, Physique (A Cooperative Study of School Children) (Sanford-Adkins-Miller-Cobb), Society for Research in Child Development, National Research Council--------Dec. xxiii
Pharmacopoeia of the United States of America, The (Twelfth Revision U.S.P. XII), Mack Printing Co. ----------May xxiii
Physique, Personality and Scholarship (A Cooperative Study of School Children) (Sanford-Adkins-Miller-Cobb), Society for Research in Child Development, National Research Council----------Dec. xxiii
Psychiatry, Fundamentals of (Strecker), J. B. Lippincott Co. ----------Feb. xix
Public Health Integration, A Venture in (Papers presented at the 1941 Health Education Conference of the New York Academy of Medicine), Columbia University Press ----------Feb. xix

Rehabilitation of the War Injured (Doherty-Runes), Philosophical Library ----------Aug. xxii

Scholarship, Physique, Personality and (A Cooperative Study of School Children) (Sanford-Adkins-Miller-Cobb), Society for Research in Child Development, National Research Council----------Dec. xxiii
Sight Saver, The (Gerling), The Harvest House--Mar. xxi
Somatic and Endocrine Studies of Puberal and Adolescent Boys (Greulich-Dorfman-Catchpole-Solomon-Culotta), Society for Research in Child Development, National Research Council, Washington, D. C.----------July xxii

Surgery, The 1942 Year Book of Industrial and Orthopedic (Painter), The Year Book Publishers, Inc. ____Feb. xix
Surgery, The Principles and Practice of War (Trueta), The C. V. Mosby Co.____June xxii
Syphilis, A Synopsis of Clinical (Howles), The C. V. Mosby Co. ____Aug. xxii

Technic, Atlas of Obstetric (Titus), The C. V. Mosby Co. ____July xxii
Treatment, Pictorial Handbook of Fracture (Compere-Banks), The Year Book Publishers, Inc.__Sept. 533
Treatment of the Patient Past Fifty (Boas), The Year Book Publishers, Inc. (r)____Aug. xxii
Treatment, Methods of (Eighth Edition), (Clendening-Hashinger), The C. V. Mosby Co.____Aug. xxii

Urology in General Practice (Ockerblad-Carlson), The Year Book Publishers, Inc.____Aug. xxii

Vision and Lateral Dominance to Reading Disability, The Relation of Certain Anomalies of (Johnston), Society for Research in Child Development, National Research Council, Washington, D. C.___Mar. xxi

War Injured, Rehabilitation of the (Doherty-Runes), Philosophical Library ____Aug. xxii
War Surgery, The Principles and Practice of (Trueta), The C. V. Mosby Co.____June xxii

Year Book of General Medicine, The 1942 (Dick-Amberson-Minot-Castle-Stroud-Eusterman), The Year Book Publishers, Inc.____Feb. xix
Year Book of Industrial and Orthopedic Surgery, The 1942 (Painter), The Year Book Publishers, Inc. ____Feb. xix
Year Book of Pathology and Immunology, The 1941 (Karsner-Hooker), The Year Book Publishers, Inc. (r) ____July xxii

SOCIETY REPORTS

Indiana State Medical Association:
Anti-Tuberculosis Committee ____ 496
Auditing Committee ____ 492
Bureau of Publicity____Mar. 178, Apr. 234 and xxi, May 280, June 330, Aug. xxi, Sept. 485, Nov. 629 and 630, and Dec.____ 723
Bureau of Maternal and Child-Health of the Indiana State Board of Health, Advisory Committee to ____491, 568 and 570
Civilian Defense, Committee on____ 499
Conservation of Vision, Committee on____ 496
Control of Cancer, Committee on____ 493
Convention Committee ____ 467
Convention Program ____ 462
Council, The ____ 109
Council, Report of the First Meeting of the____ 621
Council, Report of the Second Meeting of the____ 626
Council, Chairman of the____ 474
Councilors, Reports from District____ 476
Cultists and Irregular Practitioners, Committee to Study ____ 495
Credentials, Committee on____ 471

Data from Previous Sessions ____ 503
Division of Services for Crippled Children, Liaison Committee of the____ 492

Executive Committee ____52, 231, 280, 372, 422, 478, 566, 628
Executive Secretary ____ 471
Exhibitors ____ 504
Health Insurance, Permanent Study Committee on 488
Historian ____ 492
House of Delegates, Indianapolis Session___696 and 709
House of Delegates, Members of the____ 501
House of Delegates, Official Call to the____ 470

Industrial Health, Committee on____ 494

Journal, The ____ 487

Medical Education and Hospitals, Committee on__ 487
Medical Relief Committee____ 499
Mental Health, Committee on____ 490

Necrology, Committee on____ 489

Officers and Committees, Reports of____ 471
OPA Medical Advisory Committee____ 500

Physical Therapy, Committee on____ 498
Presidents of the Indiana State Medical Association since its organization, List of____ 503
Prevention of Traffic Accidents, Committee on____ 490
Public Policy and Legislation, Committee on____ 484
Reference Committee ____ 502

Secretaries' Conference, Committee on____ 488
Sickness Insurance, Director of Research on____ 491
Study of High School Athletics, Committee on_ 489

Treasurer ____ 472

Venereal Disease, Committee on____ 494

War Participation Committee____ 497

Indiana State Medical Association:
General Meeting ____ 626
Section on Anesthesia ____ 627
Section on Medicine ____ 627
Section on Ophthalmology and Otolaryngology____ 627
Section on Surgery ____ 627

District Meetings and Reports:
First ____Sept. 476
Second ____Sept. 476
Third ____Sept. 476
Fourth ____July 377 and Sept. 477
Fifth ____Sept. 477
Sixth ____Sept. 477
Eighth ____Sept. 477
Ninth ____July 377 and Sept. 477
Tenth ____Sept. 477 and Nov. 631
Eleventh ____July 377, Sept. 478 and Nov. 631
Twelfth ____Sept. 478
Thirteenth ____Sept. 478

SOCIETIES AND INSTITUTIONS

County Society: Officers____Jan. 54, Feb. 121, Mar. 179, Apr. xxi, May 282

Indiana State Board of Health, Bureau of Communicable Diseases____Jan. xxxvi, Feb. xxi, Mar. xxii, May xxiii, June xxiii, July xxii, Aug. xxii, Oct. 571, Nov. xxiv, and Dec. xxii

Local Society Reports____Jan. xxi, Feb. 122, Mar. 179, Apr. xxi, May 282, June 330, July 376, Sept. 532, Nov. 630, and Dec. 696, 725 and____ 726

Woman's Auxiliary to the Indiana State Medical Association____Jan. xxii, Mar. 180, Apr. xxii, May xxii, June xxii, July 378, Sept. 468 and 533, Oct. 571, Nov. 631, and Dec.____ 727

MISCELLANEOUS

Convention Notes ____ 602

Indiana University News Notes____107, 174, 230, 279, 329, 372, 421, 531, 564, 620, and 695

Military News ____45, 101, 168, 223, 272, 324, 366, 415, 524, 560, 616 and 689

News Notes ____47, 105, 171, 229, 278, 328, 370, 419, 529, 562, 619 and 694

What Went On During World War I____44, 100, 167, 228, 277, 327, 418, 527, 559, 618 and 693

(Continued from page 728)

Mrs. Rollo K. Packard, national chairman of the War Service Committee, will be guest of honor at a tea to be held December third in the Lounge Room at the Elks Club, in Kokomo. Mrs. F. S. Cuthbert, Public Relations' chairman, will be in charge of this meeting.

PROGRAMS

MRS. E. N. MENDENHALL, *Chairman*

Be informed; prepare to meet present and coming health needs! A balanced program calls for selections from each of the activities. Make your programs answer your individual needs.

Any topic presented to the laity should be discussed by a speaker authentically informed. The following bibliographies are necessarily brief. Consult your *A.M.A. Journal, State Journal; Hygeia* and the *Auxiliary Bulletin*

Legislative Activities' Topics for Meetings

A. Local Health Ordinances.
   1. Production and sale of Grade A milk.
   2. Sewage disposal and water supply.
   3. Trailer camp regulations.
   4. Supervision of public eating places.

   Note—"S" means Senate Bill. "H.R." means House of Representatives Bill.

B. Federal Legislation.
   1. Medical Care for Wives and Infants of Enlisted Men:
      H.R. 2935, *Journal A.M.A.*, June 26, 1943; and THE JOURNAL of the Indiana State Medical Association, June, 1943 — article by Thurman B. Rice, M.D., and Robert Jewett, M.D.
   2. Wagner - Murray - Dingell Social Security Plan:
      S 1161; H.R. 2861, *Journal A.M.A.*, June 26, 1943; and the President's Page, THE JOURNAL of the Indiana State Medical Association, August, 1943. Collateral: Beveridge Plan—*Medical Economics*, January, 1943; American Plan—*Medical Economics*, March, 1943.
   3. Female Physicians in Medical Corps:
      S 720-H.R. 1857, *Journal A.M.A.*, April 24, 1943.
   4. Federal Medical Academies:
      S 655-H.R. 691, *Journal A.M.A.*, April 24, 1943.
   5. Mobilization of Scientific Resources:
   6. Vocational Rehabilitation:
      S 786-S 838, *Journal A.M.A.*, April 24, 1943; H.R. 2536, *Journal A.M.A.*, May 15, 1943.

C. State.

   Note—This is not a General Assembly year. Study the Chiropractic Bill defeated in the last legislature. Be ready for the next one that will be presented.

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special

MILITARY POLICY

to the profession in the Armed Forces

REDUCED PREMIUM

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

COOK COUNTY GRADUATE SCHOOL OF MEDICINE

(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique starting January 10th, and every two weeks throughout the year.

MEDICINE—Courses to be announced in January.

GYNECOLOGY—Two Weeks Intensive course starting February 7th. Clinical Course.

OBSTETRICS—Two Weeks Intensive Course starting February 21st.

ANESTHESIA—One Week Course in Continuous Caudal Anesthesia for Obstetrics.

OPHTHALMOLOGY—Clinical Course.

OTOLARYNGOLOGY—Special and Clinical Courses.

ROENTGENOLOGY—Courses in X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

UROLOGY—Two Weeks Course and One Month Course available every two weeks.

CYSTOSCOPY—Ten Day Practical Course every two weeks.

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Address: Registrar, 427 South Honore Street
Chicago 12, Illinois

Public Relations Activities for Meetings

Consult your Advisory Board.

Sponsor Health Defense meetings with qualified speakers or available films from the Indiana State Board of Health.

A. Prevention and Alleviation of Deafness.
   1. Devices for relief of Hard-of-Hearing, American Federation of Organizations for Hard-of-Hearing, Incorporated, 1537 Thirty-fifth Street., N.W., Washington, D.C.
   2. Common Ear Troubles, *Hygeia*, September, 1941.
   3. Ear Troubles of School-Age Children.

B. Nutrition.
   1. Food Charts: Foods as Sources of Dietary Essentials, *Journal A.M.A.*—Bureau of Foods and Nutrition.
   2. Weight Reduction with Safety and Comfort, National Live Stock Meat Board, 407 S. Dearborn Street, Chicago.
   3. Unsafe Milk and Undulant Fever: State Board of Health.

C. Industrial Health.
   1. Indiana's Emergency Education Program.
   2. Health Problems of Industry, Morris Fishbein, M.D., *Hygeia*, May, 1943.
   3. Women at Work—*Hygeia*, April, 1943.

   Current articles in *Journal A.M.A.*, *Hygeia* will suggest other Industrial Health topics for symposium and panel discussions in clubs.

D. Tuberculosis Control Program of United States Public Health Service: Surgeon General Thomas Parran, *Journal A.M.A.*, February 13, 1943.

E. Cancer: Films, pamphlets, et cetera, from Indiana State Board of Health; *Hygeia*, August, 1943.

F. Mental Health.

G. Meeting the Health issues of accelerated juvenile delinquency wave.

H. Drugs.
   1. Dangerous Drugs in the Home.
   2. Use and Misuse of Prescriptions.

   Consult Bureau of Health Education, A.M.A., for possible speakers on these subjects.

Educational Activities Topics for Meetings

Note—Educational activities include all the Auxiliary agencies or media for disseminating authentic health information, e.g., *Hygeia*, *Bulletin*, pamphlets, radio, et cetera, of A.M.A.

1. Current Medical Events—*Journal A.M.A.; Bulletin; Hygeia*, and THE JOURNAL of the Indiana State Medical Association.
2. Health Forum or Quiz Program—Questions and answers obtained from "What About Your Health"—pamphlet by *Hygeia;* Queries and Minor notes in current issues of *Journal A.M.A.;* Questions and Answers—*Hygeia.*
3. Medical Care of Migratory Workers, Bureau Medical Economics, A.M.A.
4. New Forms of Medical Practice—Bureau Medical Economics, A.M.A.
5. Medical Service Plans—Bureau Medical Economics, A.M.A.
6. Poliomyelitis—*Hygeia*, October, 1942—*Journal A.M.A.*, January 30, 1943, p. 348.
7. New Plans for Relocation and Procurement of M.D.'s—*Medical Economics*, February, 1943.
8. Rehabilitation Gets First Test—*Medical Economics*, March, 1942.

Social Activities Topics for Meetings

A. Guest meetings with many of the subjects listed above, or Book Reviews:

   Note—Books listed are chosen to inspire admiration for the achievements of doctors in varied parts of the world under difficult conditions of war and circumstances.

   1. *A Surgeon's Fight to Rebuild Men*—An Autobiography, Fred H. Albee, M.D.
   2. *Hugh Young*—A Surgeon's Autobiography.
   3. *Burma Surgeon*—Gordon S. Seagrave, M.D.
   4. *A Doctor Without a Country*—Thomas A. Lambie, M.D.
   5. *A Doctor Carries On*—Thomas A. Lambie, M.D.
   6. *Castor Oil and Quinine: Once a Doctor, Always a Doctor*—George Wonson Vandegrift, M.D.
   7. *This Is My Life*—Agnes Hunt.
   8. *When Doctors Are Rationed*—Dwight Anderson.
   9. *American Doctors of Destiny*—Frank J. Jirka.
   10. *The Time of My Life*—Harry Carlos DeVighne, M.D.

INDIANA STATE BOARD OF HEALTH

DIVISION OF COMMUNICABLE DISEASES

Monthly Report, October, 1943

Diseases	*Oct. 1943*	*Sept. 1943*	*Aug. 1943*	*Oct. 1942*	*Oct. 1941*
Tuberculosis, primary	1	3	11	10	0
Tuberculosis, active	326	88	106	124	86
Tuberculosis, arrested	42	19	22	17	3
Chickenpox	205	32	15	120	79
Measles	186	39	60	47	16
Scarlet Fever	281	79	34	204	200
Smallpox	2	0	1	1	1
Typhoid Fever	12	10	10	12	9
Whooping Cough	109	171	193	138	44
Diphtheria	66	26	28	36	65
Influenza	28	17	14	63	72
Pneumonia	34	23	7	84	50
Mumps	49	20	23	123	10
Poliomyelitis	27	37	12	17	9
Cerebrospinal Meningitis	23	5	19	1	1
Trachoma	1	0	1	0	0
Septic Sore Throat	2	3	0	0	0
Malaria	12	1	9	1	9
Undulant Fever	8	6	8	4	2
Coccidioidomycosis	1	0	0	0	0
Rubella	4	4	14	1	1
Rocky Mountain Spotted Fever	1	3	0	0	0
Encephalitis Lethargia	2	0	0	0	1
Noninfectious Encephalitis	1	0	0	0	0

BOOKS RECEIVED

CLINICAL AUDIOMETRY. By C. C. Bunch, Ph.D., Research Professor in Education of the Deaf, School of Speech, Northwestern University. Cloth. 186 Pages with seventy-four illustrations. Price, $4.00. The C. V. Mosby Company, St. Louis, 1943.

HYPERTENSION. By Irvine H. Page, M.D., Director, Lilly Clinic, Indianapolis City Hospital. 81 pages with seven illustrations. Cloth. Price, $1.50. Charles C. Thomas, Springfield, 1943.

THE MIND OF THE INJURED MAN. By Joseph L. Fetterman, M.D., Assistant Clinical Professor of Nervous Diseases, Western Reserve University School of Medicine, Cleveland, Ohio. 260 pages with 28 illustrations. Cloth. Price, $4.00. Industrial Medicine Book Company, Chicago, 1943.

THE COMPLEAT PEDIATRICIAN. Fourth Edition. By Wilburt C. Davison, M.D., Professor of Pediatrics, Duke University School of Medicine. 269 pages. Cloth. Price, $3.75. Printed by Seeman Printery for Duke University Press, 1943.

PHYSIQUE, PERSONALITY AND SCHOLARSHIP. (A Cooperative Study of School Children.) By R. Nevitt Sanford, Margaret M. Adkins, R. Bretney Miller, and Elizabeth A. Cobb. 705 pages. Society for Research in Child Development, National Research Council, Washington, D. C., 1943.

AN INTRODUCTION TO MEDICAL MYCOLOGY. Second Edition. By George M. Lewis, M.D., Assistant Professor of Clinical Medicine (Dermatology), Cornell University Medical School, and Mary E. Hopper, M.S., Research Fellow in Medicine, Cornell University Medical School. 342 pages with 77 illustrations. Cloth. Price, $6.50. The Year Book Publishers, Inc., 304 S. Dearborn Street, Chicago.

REVIEWED

HOOSIER CITY. By Jeannette Covert Nolan. Cloth. Price $2.75. Published November 1, 1943, by Julian Messner, New York City.

Hoosier City, the Story of Indianapolis, by Jeannette Covert Nolan, is in a way a story of Hoosier doctors, too, for while tracing the history of Indianapolis it also includes data on the history of medicine in the city. The book, published this month, is a biography of a town, by a native author.

She depicts the first physician to come to stump-studded Washington Street, Dr. S. G. Mitchell, as a very busy man. By 1821, "Dr. Mitchell was busy day and night, but without Dr. Isaac Coe to shoulder part of the burden, the summer might have had a different and much more tragic ending. The use of quinine as a cure for malaria was a recent discovery of Eastern physicians and had not been known in Indianapolis." The new Dr. Coe, trained in the East, had moved to the new little settlement on Fall Creek from Madison and carried in his little brass-bound satchel a stock of Peruvian bark from the cinchona tree. The pills Dr. Coe made were of such heroic size that Indianapolis people composed a couplet about them, "Oh, Dr. Coe! Oh, Dr. Coe! What makes you dose your patients so?" But they took them and the epidemic abated. Soon other doctors came from the East—Dr. Livingston Dunlap from New York, and Dr. Jonathan Cool from New Jersey.

Mrs. Nolan tells of the forming, in 1823, of the Indiana Central Medical Society to license physicians to practice under the law currently in force, with Dr. Mitchell as president and Dr. Dunlap as secretary—the same Dr. Dunlap who was president of the Indiana State Medical Society in 1849.

The development of the hospitals in the city, and of the Indiana University Medical Center are traced, with special attention to the James Whitcomb Riley Hospital for Children—also considered in Mrs. Nolan's life of the Hoosier poet.

Hoosier City is the first in a series of biographies of the cities of America.

ABSTRACT

ADVISE BRAIN OPERATION IN SELECTED CASES OF CHRONIC SCHIZOPHRENIA

"In certain selected chronic cases of schizophrenia, in the light of present knowledge, lobotomy should be continued in order to restore many disabled persons to social usefulness," A. E. Bennett, M.D.; J. J. Keegan, M.D., and C. B. Wilbur, M.D., Omaha, advise in *The Journal of the American Medical Association* for November 27. "This operation," they continue, "has effected a good social recovery in four cases of aggressive paranoid schizophrenia. One catatonic type failed to improve. [The five cases are described in their report.]

"The problem of social rehabilitation of these patients opens up a new field of social and psychiatric nursing technics and needs more study to aid lobotomized patients to resume normal living."

The operation of prefrontal lobotomy for certain mental disorders was introduced by a Portugese neurosurgeon, Egas Moniz, in 1936 and in this country in the same year by Walter Freeman, M.D., and J. W. Watts, M.D. As the Omaha men point out, the operation has been established as a useful procedure in psychiatric treatment. They believe its usefulness should continue to be investigated and that it should be limited to chronically disabled psychotic or mental patients unimproved by other treatments.

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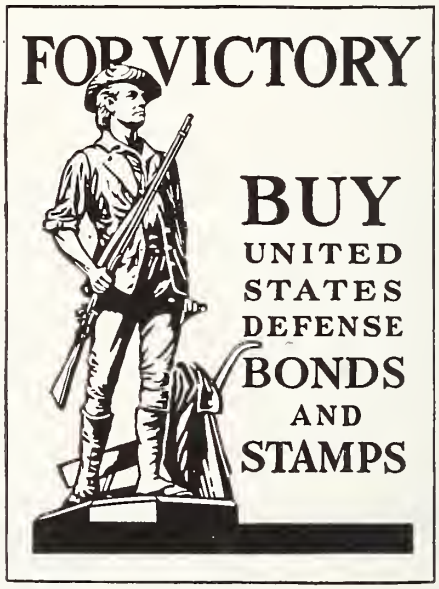

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